



SEQUENCE LISTING

<110> Contreras, Roland
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<120> Drug Targets In Candida Albicans

<130> 50899/002

<140> US/09/763,011A

<141> 2001-02-14

<150> 98310694.9

<151> 1998-12-23

<150> 9817796.7

<151> 1998-08-14

<160> 114

<170> PatentIn Ver. 2.0

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<213> Candida albicans

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<213> *Candida albicans*

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165 170 175

Leu Glu Lys Leu Val Leu Asp Leu Arg Leu Glu Met Lys Glu Gln Gln

180 185 190

Lys Ser Phe Asn Asp Gln Leu Val Asp Ile Tyr Thr Ala Arg Ser Ile

195 200 205

Val Pro Ile Tyr Thr Thr His Ile Val Thr Ser Ala Ile Pro Ser Tyr

210 215 220

Val Pro Lys Glu Glu Val Met Val Ser His Asp Thr Ala Pro Ile Val

225 230 235 240

Ser Arg Pro Arg Thr Asp Ile Pro Val Ser Gln Arg Ile Asp Thr Ile

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Ala Thr Lys Thr Glu Val Ala Tyr Met Lys Pro Lys Ile Val Trp Thr

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Ser Glu Leu Gly Thr Lys Thr Pro Asn Phe Glu Asp Pro Phe Glu Gln
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Lys Lys Pro Thr Thr Thr Val Phe Gly Thr Ser Thr Ser Ala Leu Ser
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Thr Phe Glu Ser Thr Ile Phe Glu Ile Pro Lys Phe Phe Tyr Gly Ser
420 425 430

Arg Arg Lys Gln Ser Ser Ser Phe Lys Asn Lys Asn Ser Thr Ile Lys
435 440 445

Phe Asp Val Phe Asp Trp Ile Phe Glu Ser Gly Thr Thr Asn Glu Lys

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<213> Candida albicans

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<212> PRT

<213> *Candida albicans*

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Tyr His Pro Asp Lys Thr Pro Arg Arg Glu Asp His Glu Lys Phe Lys

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40

45

Glu Ile Asn Ile Ala Tyr Glu Thr Ile Arg Asp Tyr Tyr Gln Glu Asn

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55

60

Gly Gln Lys Asn Ser Gln Pro Ile Pro Asn Thr Asn Thr Glu His Asn

65

70

75

80

Ser His Gln Lys Pro His Tyr Asn Thr Gly Pro Tyr Ser Thr Tyr Arg

85

90

95

Phe Thr Thr Ser Ser Thr Thr Thr Asp Asn Thr Asn His Thr Gly His

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105

110

Ser Ser Ser Arg Phe Thr Tyr Tyr Asn Phe His Gln Lys Ala Gln Glu

115

120

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Asn Asn Arg Lys Gln Asp Glu Glu Arg Ala Ala Gln Arg Glu Arg Leu

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Lys Glu Phe Glu Gln Lys Ala Glu Phe Ile Lys Ala Ser Leu Leu Glu
165 170 175

Met Arg Arg Arg Glu Ile Glu Arg Arg Lys Gln Gln Lys Glu Arg Glu
180 185 190

Gln Arg Gln Lys Glu His Glu Ala Lys Arg Asp Ile Arg Ile Gln Gln
195 200 205

Leu Ser Glu Gln Asp Ser Arg Ser Asn Gln Thr Lys Glu Glu Glu Glu
210 215 220

Val Phe Lys Lys Ala Arg Ser Thr Asn Ser Gly Ala Asp Glu Thr Gly
225 230 235 240

Leu Met Ser Asp Lys Glu Phe Asp Asp Ser Ala Tyr Ser Pro Asp Tyr
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Leu Phe Glu Glu Asn Leu Trp Asn Lys Pro Asn His Pro Asp Thr Asn
260 265 270

His Lys Thr Lys Lys Tyr Thr Glu Asn Val Val Glu Asn Leu Asp Ser
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Pro Pro Asn Asp Thr Ser Ala Tyr Asn Ser Ser Phe His Asp Glu Thr

290

295

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305

310

315

320

Gln Met Lys Ala Thr Ser Ser Val Asn Asn Thr Thr Ile Pro Ala Gln

325

330

335

Arg Arg His Glu Ser Leu Ser Thr Ser Glu Asn Lys Arg Arg Lys Phe

340

345

350

Glu Thr Ala Asp Val Gly Val Asp Gly Leu Asp Ser Pro Val Arg Ala

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365

Gln Pro Glu Ile Ser Gly Lys Ser Lys Ser Pro Ile Ile Pro Asp Val

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Ile Leu Leu Ser Asp Glu Glu Thr Glu Thr Pro Glu Ala Asn Ala Val

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390

395

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Gln Asp Asn Ser Thr Tyr Ile Pro Gln Gly Ser Leu Gly His Glu Phe

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Arg Asn Ile Leu Glu Glu His Pro Arg Gln Val Lys Asn Lys Gln Asn

420

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Ser Gly Val Ala Phe Ala Phe Pro Asn Ala Ser Lys Asn Thr Glu Asn

435

440

445

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Thr His Ile Pro Asn Pro Ser Thr Met Asn Glu Ala Arg Pro His Pro
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Glu Gln Lys Leu Gly Asn Asp Ile Glu Asp Leu Asp Phe Lys Asp Met
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Tyr Glu Ser Leu Pro Asp His Ser Ser Lys Ala Thr Pro Lys Asp Asp
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Ile Leu Thr Arg Ser Lys Arg Arg Leu Tyr Thr Tyr Thr Asp Gly Thr
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Ser Lys Ala Glu Thr Leu Ser Thr Pro Met Asn Lys Asn Pro Val Arg
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Gly His Ser Thr Lys Lys Lys Leu Ser Met Leu Asp Met His Ala Ser

595

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605

Ser Lys Ile Gln Ser Leu Leu Pro Pro Gln Pro Pro Gln Met Ser Ile

610

615

620

Asp Pro Ser Val Ser Lys Gln Val Trp Ala Lys Tyr Val Asp Ala Ile

625

630

635

640

Leu Thr Tyr Gln Arg Glu Phe Phe Asn Tyr Lys Lys Val Ile Val Gln

645

650

655

Tyr Gln Met Glu Arg Ile Asn Lys Asp Leu Glu His Phe Asp Asp Ile

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665

670

Asn Asp Gly Ser His Thr Glu Asn Leu Asp Thr Phe Lys His Cys Leu

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680

685

Glu Gln Asp Tyr Leu Val Met Ser Glu Phe Asn Glu Ala Leu Arg Gln

690

695

700

Phe Gly Thr Thr Ile Ala Thr Tyr Gln Gln Asn Leu Gln Trp Val Asn

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Thr Phe Met Glu Arg Asp Pro Asn Trp Leu

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<212> PRT

<213> Candida albicans

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Ala Leu Ser Ser Ser Cys Leu Arg Leu Phe Ser Cys Ala Phe Trp Trp

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Lys Leu

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<211> 61

<212> PRT

<213> Candida albicans

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25

30

Asn Ser Leu Gln Thr Asn Asn Arg Val Asn Met Gln Asn His Gln Thr

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<212> PRT

<213> Candida albicans

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25

30

Gln Ile Phe Ser Val Val Pro Ala Ser Gly Asn Leu Thr His Gln Pro

35

40

45

Gln Arg Arg Ser Phe Gln Ile Ser Phe Phe Cys Phe Gln Lys Trp Lys

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Val Thr His Val Phe Phe Val Gln Gly Trp Trp Tyr Tyr

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<213> *Candida albicans*

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<212> DNA

<213> *Candida albicans*

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<213> *Candida albicans*

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<223> Xaa = any amino acid

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<223> Xaa = any amino acid

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10

15

Gly Asn Pro Val Ala Val Ile Tyr Asp Ser Asp Asn Leu Thr Thr Gln

20

25

30

Glu Met Gln Lys Ile Ala Arg Trp Thr Asn Leu Ser Glu Thr Thr Phe

35

40

45

Ile Leu Thr Pro Lys Ser Ser Ile Ala Xaa Tyr Ser Ile Arg Ile Phe

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55

60

Thr Ser Gly Gly Asn Glu Leu Pro Phe Ala Gly His Pro Thr Leu Gly
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Thr Ala Phe Ala Leu Leu Glu Asp Gly Lys Ile Lys Pro Asn Asp Asn
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Gly Gln Ile Ile Gln Glu Cys Gly Ala Gly Leu Val Lys Ile Ser Val
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Glu Lys Thr Pro Asn Asn Asn Ser Asn Glu Leu Pro Phe Leu Leu Ser
 115 120 125

Phe Glu Leu Pro Tyr Phe Lys Phe His Glu Ile Asp Asp Lys Val Ile
 130 135 140

Glu Glu Leu Gln His Ser Trp Asn Gly Thr Asn Ile Ile Gly Lys Pro
 145 150 155 160

Val Leu Ile Asp Ala Gly Pro Lys Trp Ala Val Phe Gln Leu Gly Ser
 165 170 175

Gly Lys Glu Val Leu Asp Leu Asn Xaa Asp Leu Ala Gln Ile Glu Arg
 180 185 190

Leu Ser Leu Glu Asn Gly Trp Thr Gly Ile Gly Val Phe Gly Lys His
 195 200 205

Asn Glu Asn Gly Asp Ser Val Glu Leu Arg Asn Ile Ala Pro Ala Val
 210 215 220

Gly Val Ala Glu Asp Pro Ala Cys Gly Ser Gly Ser Gly Ala Ile Gly
 225 230 235 240

Ala Tyr Leu Ala Asn His Val Phe Asn Glu Lys Glu Lys Phe Thr Ile
 245 250 255

Asp Ile Ser Gln Gly Lys Pro Ile Glu Arg Asp Ala Lys Ile Gln Val
 260 265 270

Lys Val Asn Arg Leu Thr Thr Lys Asn Gly Asp Leu Ser Ile His Val
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Gly Gly His Ala Ile Thr Cys Phe Glu Gly Thr Tyr Ser Ile
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<210> 14

<211> 3726

<212> DNA

<213> Candida albicans

<400> 14

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<211> 942

<212> PRT

<213> Candida albicans

<400> 15

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35 40 45

Leu Gly Ser Thr Phe Tyr Ala Val Thr Ser Val Gly Arg Ser Phe Gln

50 55 60

Ile Tyr Asp Leu Ala Thr Leu His Leu Leu Phe Val Ser Gln Thr Gln

65 70 75 80

Thr Pro Ser Arg Ile Thr Ser Leu Ala Ala His His His Tyr Val Tyr

85 90 95

Ala Ser Tyr Gly Asp Arg Ile Gly Ile Phe Arg Arg Gly Arg Leu Glu

100

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110

His Glu Leu Val Cys Glu Gly Asn Ser Thr Val Asn Gln Leu Leu Val

115

120

125

Phe Gly Glu Tyr Leu Ile Ala Thr Thr Leu Glu Gly Asp Ile Phe Val

130

135

140

Phe Arg Lys Thr Glu Gly Lys Lys Phe Pro Thr Glu Leu Tyr Thr Thr

145

150

155

160

Ile Arg Ile Ile Asn Ser Leu Val Glu Gly Glu Ile Val Gly Leu Ile

165

170

175

His Pro Pro Thr Tyr Leu Asn Lys Val Ile Val Ala Thr Thr Gln Ser

180

185

190

Val Phe Val Ile Asn Val Arg Thr Gly Lys Leu Leu Tyr Lys Ser Arg

195

200

205

Glu Leu Gln Phe Glu Gly Glu Lys Ile Ser Ser Ile Glu Ala Ala Pro

210

215

220

Val Leu Asp Val Ile Ala Val Gly Thr Ser Asn Gly Asn Val Phe Leu

225

230

235

240

Phe Asn Ile Lys Lys Gly Lys Val Leu Gly Gln Lys Ile Ile Thr Ser

245

250

255

Gly Thr Glu Ser Ser Ser Lys Val Ala Ser Ile Ser Phe Arg Thr Asp
 260 265 270

Gly Ala Pro His Leu Val Ala Gly Leu Asn Asn Gly Asp Leu Tyr Phe
 275 280 285

Tyr Asp Leu Asp Lys Lys Ser Arg Val His Val Leu Arg Asn Ala His
 290 295 300

Lys Glu Thr His Gly Gly Val Ala Asn Ala Lys Phe Leu Asn Gly Gln
 305 310 315 320

Pro Ile Val Leu Ser Asn Gly Gly Asp Asn His Leu Lys Glu Phe Val
 325 330 335

Phe Asp Pro Asn Leu Thr Thr Ser Asn Ser Ser Ile Val Pro Pro Pro
 340 345 350

Arg His Leu Arg Ser Arg Gly Gly His Ser Ala Pro Pro Val Ala Ile
 355 360 365

Glu Phe Pro Gln Glu Asp Lys Thr His Phe Leu Leu Ser Ala Ser Arg
 370 375 380

Asp Lys Thr Phe Trp Ile Phe Ser Leu Arg Lys Asp Ala Gln Ala Gln
 385 390 395 400

Glu Met Ser Gln Arg Leu Gln Lys Ser Lys Asp Gly Lys Arg Gln Ala

405

410

415

Gly Gln Val Val Ser Met Arg Glu Lys Phe Pro Glu Ile Ile Ser Ile

420

425

430

Ser Ser Ser Tyr Ala Arg Glu Gly Asp Trp Glu Asn Ile Ile Thr Ala

435

440

445

His Lys Asp Glu Thr Phe Ala Arg Thr Trp Asp Ser Arg Asn Lys Arg

450

455

460

Val Gly Arg His Leu Leu Asn Thr Ile Asp Gly Gly Ile Val Lys Ser

465

470

475

480

Val Cys Val Ser Gln Cys Gly Asn Phe Gly Leu Val Gly Ser Ser Ser

485

490

495

Gly Gly Ile Gly Ser Tyr Asn Leu Gln Ser Gly Leu Leu Arg Lys Lys

500

505

510

Tyr Val Leu His Lys Gln Ala Val Thr Gly Leu Ala Ile Asp Gly Met

515

520

525

Asn Arg Lys Met Val Ser Cys Gly Leu Asp Gly Ile Val Gly Phe Tyr

530

535

540

Asp Phe Gly Lys Ser Val Tyr Leu Gly Lys Leu Gln Leu Glu Ala Pro

545

550

555

560

Ile Thr Ser Met Ile Tyr His Lys Ser Ser Asp Leu Val Ala Cys Ala
 565 570 575

Leu Asp Asp Leu Ser Ile Val Val Ile Asp Val Thr Thr Gln Lys Val
 580 585 590

Ile Arg Ile Leu Tyr Gly His Thr Asn Arg Ile Ser Gly Met Asp Phe
 595 600 605

Ser Pro Asp Gly Arg Trp Ile Val Ser Val Ala Leu Asp Ser Thr Leu
 610 615 620

Arg Thr Trp Asp Leu Pro Thr Gly Gly Cys Ile Asp Gly Val Ile Leu
 625 630 635 640

Pro Ile Val Ala Thr Ala Val Lys Phe Ser Pro Ile Gly Asp Ile Leu
 645 650 655

Ala Thr Thr His Val Ser Gly Asn Gly Val Ser Leu Trp Thr Asn Arg
 660 665 670

Ala Gln Phe Lys Pro Val Ser Thr Arg His Val Glu Glu Asp Glu Phe
 675 680 685

Ser Thr Ile Leu Leu Pro Asn Ala Ser Gly Asp Gly Gly Ser Thr Met
 690 695 700

Leu Asp Gly Phe Leu Asp Glu Asp Ser Asn Glu Asp Gly Thr Ile Asp

705 710 715 720

Glu Gln Tyr Thr Ser Ala Ala Gln Ile Asp Ala Ser Leu Ile Thr Leu

725 730 735

Ser Ser Glu Pro Arg Ser Lys Phe Asn Thr Leu Leu His Leu Asp Thr

740 745 750

Ile Lys Gln Gln Ser Lys Pro Lys Glu Ala Pro Lys Lys Pro Glu Asn

755 760 765

Ala Pro Phe Phe Leu Gln Leu Thr Gly Gln Ala Val Gly Asp Arg Ala

770 775 780

Ser Val Ala Glu Gly Lys Thr Ser Glu Gln Thr Asn Asn Thr Val Glu

785 790 795 800

Glu Thr Asn Ser Lys Leu Arg Lys Leu Asp Thr Asn Gly Asn His Ala

805 810 815

Phe Glu Ser Glu Phe Thr Lys Leu Leu Arg Glu Ala Gly Glu Ser Gly

820 825 830

Gln Phe Glu Arg Phe Leu Thr Tyr Leu Leu Asn Leu Ser Pro Ala Val

835 840 845

Leu Asp Leu Glu Ile Arg Ser Leu Asn Ser Phe Val Pro Leu Thr Glu

850 855 860

Met Thr Asn Phe Ile Gln Ala Leu Asn Ala Gly Leu Lys Ser Asn Ala
 865 870 875 880

Asn Tyr Glu Ile Trp Glu Thr Leu Tyr Ala Met Phe Phe Asn Ile His
 885 890 895

Gly Asp Val Ile His Gln Phe Glu Asn Glu Thr Ser Leu His Glu Ala
 900 905 910

Leu Glu Glu Tyr Arg Gln Leu Asn Asp Glu Lys Asn Asn Lys Met Asp
 915 920 925

Ser Leu Val Lys Tyr Cys Ala Ser Ile Val Ser Phe Ile Ser
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<210> 16

<211> 725

<212> DNA

<213> Candida albicans

<400> 16

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<210> 17

<211> 626

<212> DNA

<213> Candida albicans

<400> 17

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<210> 18

<211> 667

<212> DNA

<213> *Candida albicans*

<400> 18

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<210> 19

<211> 5

<212> PRT

<213> *Candida albicans*

<400> 19

Met Pro Tyr Thr Glu

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<210> 20

<211> 165

<212> DNA

<213> *Candida albicans*

<400> 20

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<210> 21

<211> 564

<212> DNA

<213> *Candida albicans*

<400> 21

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<210> 22

<211> 136

<212> PRT

<213> *Candida albicans*

<400> 22

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15

Arg Tyr Ala Gly Lys Lys Val Val Ile Val Lys Pro His Asp Glu Gly

20

25

30

Thr Lys Ser His Pro Phe Pro His Ala Ile Val Ala Gly Ile Glu Arg

35

40

45

Ala Pro Leu Lys Val Thr Lys Lys Met Asp Ala Lys Lys Val Thr Lys

50

55

60

Arg Thr Lys Val Lys Pro Phe Val Lys Leu Val Asn Tyr Asn His Leu

65

70

75

80

Met Pro Thr Arg Tyr Ser Leu Asp Val Glu Ser Phe Lys Ser Ala Val

85

90

95

Thr Ser Glu Ala Leu Glu Glu Pro Ser Gln Arg Glu Glu Ala Lys Lys

100

105

110

Val Val Lys Lys Ala Phe Glu Glu Lys His Gln Ala Gly Lys Asn Lys

115

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Trp Phe Phe Gln Lys Leu His Phe

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<210> 23

<211> 1192

<212> DNA

<213> *Candida albicans*

<400> 23

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<211> 336

<212> PRT

<213> Candida albicans

<400> 24

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20 25 30

Gln Leu Leu Leu Lys Val Asp Ala Val Gly Leu Cys His Ser Asp Leu

35 40 45

His Val Leu Tyr Glu Gly Leu Asp Cys Gly Asp Asn Tyr Val Met Gly

50 55 60

His Glu Ile Ala Gly Thr Val Ala Glu Leu Gly Glu Glu Val Ser Glu

65 70 75 80

Phe Ala Val Gly Asp Arg Val Ala Cys Val Gly Pro Asn Gly Cys Gly

85 90 95

Leu Cys Lys His Cys Leu Thr Gly Asn Asp Asn Val Cys Thr Lys Ser

100 105 110

Phe Leu Asp Trp Phe Gly Leu Gly Tyr Asn Gly Gly Tyr Glu Gln Phe

115

120

125

Leu Leu Val Lys Arg Pro Arg Asn Leu Val Lys Ile Pro Asp Asn Val

130

135

140

Thr Ser Glu Glu Ala Ala Ala Ile Thr Asp Ala Val Leu Thr Pro Tyr

145

150

155

160

His Ala Ile Lys Ser Ala Gly Val Gly Pro Ala Ser Asn Ile Leu Ile

165

170

175

Ile Gly Ala Gly Gly Leu Gly Gly Asn Ala Ile Gln Val Ala Lys Ala

180

185

190

Phe Gly Ala Lys Val Thr Val Leu Asp Lys Lys Asp Lys Ala Arg Asp

195

200

205

Gln Ala Lys Ala Phe Gly Ala Asp Gln Val Tyr Ser Glu Leu Pro Asp

210

215

220

Ser Val Leu Pro Gly Ser Phe Ser Ala Cys Phe Asp Phe Val Ser Val

225

230

235

240

Gln Ala Thr Tyr Asp Leu Cys Gln Lys Tyr Cys Glu Pro Lys Gly Thr

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250

255

Ile Val Pro Val Gly Leu Gly Ala Thr Ser Leu Asn Ile Asn Leu Ala

260

265

270

Asp Leu Asp Leu Arg Glu Ile Thr Val Lys Gly Ser Phe Trp Gly Thr
 275 280 285

Ser Met Asp Leu Arg Glu Ala Phe Glu Leu Ala Ala Gln Gly Lys Val
 290 295 300

Lys Pro Asn Val Ala His Ala Pro Leu Ser Glu Leu Pro Lys Tyr Met
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Glu Lys Leu Arg Ala Gly Gly Tyr Glu Gly Arg Val Val Phe Asn Pro
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<210> 25

<211> 2481

<212> DNA

<213> Candida albicans

<400> 25

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<212> PRT

<213> Candida albicans

<400> 26

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Lys Asp Asn Ala Leu Val Val Asp Asp Ala Thr Asn Asp Asp Asn Ser

35

40

45

Val Ile Thr Met Ser Ser Asn Thr Met Glu Leu Leu Gln Leu Phe Arg

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Gly Asp Thr Val Leu Val Lys Gly Lys Lys Arg Lys Asp Thr Val Leu

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Ile Val Leu Ala Asp Asp Asp Met Pro Asp Gly Val Ala Arg Val Asn
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Arg Cys Val Arg Asn Asn Leu Arg Val Arg Leu Gly Asp Ile Val Thr
 100 105 110

Val His Pro Cys Pro Asp Ile Lys Tyr Ala Asn Arg Ile Ser Val Leu
 115 120 125

Pro Ile Ala Asp Thr Val Glu Gly Ile Asn Gly Ser Leu Phe Asp Leu
 130 135 140

Tyr Leu Lys Pro Tyr Phe Val Glu Ala Tyr Arg Pro Val Arg Lys Gly
 145 150 155 160

Asp Leu Phe Thr Val Arg Gly Gly Met Arg Gln Val Glu Phe Lys Val
 165 170 175

Val Glu Val Asp Pro Glu Glu Ile Ala Ile Val Ala Gln Asp Thr Ile
 180 185 190

Ile His Cys Glu Gly Glu Pro Ile Asn Arg Glu Asp Glu Glu Asn Ser
 195 200 205

Leu Asn Glu Val Gly Tyr Asp Asp Ile Gly Gly Cys Lys Lys Gln Met
 210 215 220

Ala Gln Ile Arg Glu Leu Val Glu Leu Pro Leu Arg His Pro Gln Leu

225 230 235 240

Phe Lys Ser Ile Gly Ile Lys Pro Pro Lys Gly Ile Leu Met Tyr Gly
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Pro Pro Gly Thr Gly Lys Thr Ile Met Ala Arg Ala Val Ala Asn Glu
 260 265 270

Thr Gly Ala Phe Phe Phe Leu Ile Asn Gly Pro Glu Ile Met Ser Lys
 275 280 285

Met Ala Gly Glu Ser Glu Ser Asn Leu Arg Lys Ala Phe Glu Glu Ala
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Glu Lys Asn Ser Pro Ser Ile Ile Phe Ile Asp Glu Ile Asp Ser Ile
305 310 315 320

Ala Pro Lys Arg Asp Lys Thr Asn Gly Glu Val Glu Arg Arg Val Val
 325 330 335

Ser Gln Leu Leu Thr Leu Met Asp Gly Met Lys Ala Arg Ser Asn Val
 340 345 350

Val Val Ile Ala Ala Thr Asn Arg Pro Asn Ser Ile Asp Pro Ala Leu
 355 360 365

Arg Arg Phe Gly Arg Phe Asp Arg Glu Val Asp Ile Gly Val Pro Asp
 370 375 380

Ala Glu Gly Arg Leu Glu Ile Leu Arg Ile His Thr Lys Asn Met Lys
 385 390 395 400

Leu Ala Asp Asp Val Asp Leu Glu Ala Ile Ala Ser Glu Thr His Gly
 405 410 415

Phe Val Gly Ala Asp Ile Ala Ser Leu Cys Ser Glu Ala Ala Met Gln
 420 425 430

Gln Ile Arg Glu Lys Met Asp Leu Ile Asp Leu Glu Glu Glu Thr Ile
 435 440 445

Asp Thr Glu Val Leu Asn Ser Leu Gly Val Thr Gln Asp Asn Phe Arg
 450 455 460

Phe Ala Leu Gly Asn Ser Asn Pro Ser Ala Leu Arg Glu Thr Val Val
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Glu Asn Val Asn Val Thr Trp Asp Asp Ile Gly Gly Leu Asp Asn Ile
 485 490 495

Lys Asn Glu Leu Lys Glu Thr Val Glu Tyr Pro Val Leu His Pro Asp
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Gln Tyr Gln Lys Phe Gly Leu Ala Pro Thr Lys Gly Val Leu Phe Phe
 515 520 525

Gly Pro Pro Gly Thr Gly Lys Thr Leu Leu Ala Lys Ala Val Ala Thr

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535

540

Glu Val Ser Ala Asn Phe Ile Ser Val Lys Gly Pro Glu Leu Leu Ser

545

550

555

560

Met Trp Tyr Gly Glu Ser Glu Ser Asn Ile Arg Asp Ile Phe Asp Lys

565

570

575

Ala Arg Ala Ala Ala Pro Thr Val Val Phe Leu Asp Glu Leu Asp Ser

580

585

590

Ile Ala Lys Ala Arg Gly Gly Ser His Gly Asp Ala Gly Gly Ala Ser

595

600

605

Asp Arg Val Val Asn Gln Leu Leu Thr Glu Met Asp Gly Met Asn Ala

610

615

620

Lys Lys Asn Val Phe Val Ile Gly Ala Thr Asn Arg Pro Asp Gln Ile

625

630

635

640

Asp Pro Ala Leu Leu Arg Pro Gly Arg Leu Asp Gln Leu Ile Tyr Val

645

650

655

Pro Leu Pro Asp Glu Pro Ala Arg Leu Ser Ile Leu Gln Ala Gln Leu

660

665

670

Arg Asn Thr Pro Leu Glu Pro Gly Leu Asp Leu Asn Glu Ile Ala Lys

675

680

685

Ile Thr His Gly Phe Ser Gly Ala Asp Leu Ser Tyr Ile Val Gln Arg

690

695

700

Ser Ala Lys Phe Ala Ile Lys Asp Ser Ile Glu Ala Gln Val Lys Ile

705

710

715

720

Asn Lys Ile Lys Glu Glu Lys Glu Lys Val Lys Thr Glu Asp Val Asp

725

730

735

Met Lys Val Asp Glu Val Glu Glu Glu Asp Pro Val Pro Tyr Ile Thr

740

745

750

Arg Ala His Phe Glu Glu Ala Met Lys Thr Ala Lys Arg Ser Val Ser

755

760

765

Asp Ala Glu Leu Arg Arg Tyr Glu Ser Tyr Ala Gln Gln Leu Gln Ala

770

775

780

Ser Arg Gly Gln Phe Ser Ser Phe Arg Phe Asn Glu Asn Ala Gly Ala

785

790

795

800

Thr Asp Asn Gly Ser Ala Ala Gly Ala Asn Ser Gly Ala Ala Phe Gly

805

810

815

Asn Val Glu Glu Glu Asp Asp Leu Tyr Ser

820

825

<210> 27

<211> 1918

<212> DNA

<213> *Candida albicans*

<400> 27

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<210> 28

<211> 466

<212> PRT

<213> Candida albicans

<400> 28

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Thr Phe Lys Asn Ser Ile Arg Thr Tyr Ala Ser Ala Glu Pro Thr Leu

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25

30

Lys Gln Arg Leu Glu Glu Ile Leu Pro Ala Lys Ala Glu Glu Val Lys

35

40

45

Gln Phe Lys Lys Glu His Gly Lys Thr Val Ile Gly Glu Val Leu Leu

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55

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Glu Gln Ala Tyr Gly Gly Met Arg Gly Ile Lys Gly Leu Val Trp Glu
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Gly Ser Val Leu Asp Pro Ile Glu Gly Ile Arg Phe Arg Gly Arg Thr
85 90 95

Ile Pro Asp Ile Gln Lys Glu Leu Pro Lys Ala Pro Gly Gly Glu Glu
100 105 110

Pro Leu Pro Glu Ala Leu Phe Trp Leu Leu Leu Thr Gly Glu Val Pro
115 120 125

Thr Asp Ala Gln Thr Lys Ala Leu Ser Glu Glu Phe Ala Ala Arg Ser
130 135 140

Ala Leu Pro Lys His Val Glu Glu Leu Ile Asp Arg Ser Pro Ser His
145 150 155 160

Leu His Pro Met Ala Gln Phe Ser Ile Ala Val Thr Ala Leu Glu Ser
165 170 175

Glu Ser Gln Phe Ala Gln Ala Tyr Ala Lys Gly Ala Asn Lys Ser Glu
180 185 190

Tyr Trp Lys Tyr Thr Tyr Glu Asp Ser Ile Asp Leu Leu Ala Lys Leu
195 200 205

Pro Thr Ile Ala Ala Lys Ile Tyr Arg Asn Val Phe His Asp Gly Lys

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Leu Pro Ala Ala Ile Asp Ser Lys Leu Asp Tyr Gly Ala Asn Leu Ala

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230

235

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Ser Leu Leu Gly Phe Gly Asp Asn Lys Glu Phe Val Glu Leu Met Arg

245

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255

Leu Tyr Leu Thr Ile His Ser Asp His Glu Gly Gly Asn Val Ser Ala

260

265

270

His Thr Thr His Leu Val Gly Ser Ala Leu Ser Ser Pro Phe Leu Ser

275

280

285

Leu Ala Ala Gly Leu Asn Gly Leu Ala Gly Pro Leu His Gly Arg Ala

290

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300

Asn Gln Glu Val Leu Glu Trp Leu Phe Lys Leu Arg Glu Glu Leu Asn

305

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315

320

Gly Asp Tyr Ser Lys Glu Ala Ile Glu Lys Tyr Leu Trp Glu Thr Leu

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330

335

Asn Ser Gly Arg Val Val Pro Gly Tyr Gly His Ala Val Leu Arg Lys

340

345

350

Thr Asp Pro Arg Tyr Thr Ala Gln Arg Glu Phe Ala Leu Lys His Met

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360

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Pro Asp Tyr Glu Leu Phe Lys Leu Val Ser Asn Ile Tyr Glu Val Ala
370 375 380

Pro Gly Val Leu Thr Lys His Gly Lys Thr Lys Asn Pro Trp Pro Asn
385 390 395 400

Val Asp Ser His Ser Gly Val Leu Leu Gln Tyr Tyr Gly Leu Thr Glu
405 410 415

Gln Ser Phe Tyr Thr Val Leu Phe Gly Val Ser Arg Ala Phe Gly Val
420 425 430

Leu Pro Gln Leu Ile Leu Asp Arg Gly Ile Gly Met Pro Ile Glu Arg
435 440 445

Pro Lys Ser Phe Ser Thr Glu Lys Tyr Ile Glu Leu Val Lys Asn Ile
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Asn Lys

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<210> 29

<211> 2862

<212> DNA

<213> Candida albicans

<400> 29

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<211> 953

<212> PRT

<213> Candida albicans

<400> 30

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Ile Lys Asp Glu Gln Phe Glu Asn Phe Leu Lys Phe Glu Tyr Cys Arg

20

25

30

Ala Leu Leu Ser Gln Thr Asn Asn Asn Pro Thr Asn Asp Val Lys Phe

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Ser Gln Ile Phe Leu Asp Leu Lys Lys Arg Ser Gln Asn Trp Lys Ser

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Phe Asp Asp Ile Ile Gln Leu Ser Leu Leu Gln Leu Gln Tyr Cys Ile

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Tyr Ala Lys Asn Ser Ile Lys Ala Lys Asp Arg Phe Asn Gly Ile Leu

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Gln Thr Leu Leu Lys Lys Pro Gln Phe Asn Ile Ser Lys Ser Lys Asn

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110

Leu Pro Ile Val Ser Lys Leu Gln Asn Phe Leu Ile Leu Gly Lys Phe

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Gln Leu Leu Ala Cys His Val Asn Asn His Ile Ile His Asn Lys Ile

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Glu Ala Phe Asn Asn Ile Lys Thr Gly Ile Gln Leu Leu Tyr Ser Ile

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Val Lys Lys Leu Pro Thr Asn Ile Asn Lys Thr Leu Trp Gln Glu Leu

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Asn Trp Glu Ile Thr Arg Leu Leu Phe Asp Ser Tyr Lys Leu Ala Ile

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190

Asp Leu Ser Ile Asp Ile Gly Ile Ser Arg Asp Ile Pro Leu Phe Leu

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Asn Glu Trp Val Lys Leu Asn Asn Ser Ile Asp Asn Asp Val Pro Ile

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Val Asn Cys Ile Asn Glu Phe Glu Ile Gly Arg Tyr Gly Leu Leu Ser

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Asn Asn Glu Phe Gln Lys Tyr Ile Arg Ile Ala Gln Gly Arg Leu Gly

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Tyr Ser Leu Val Lys Asn Asn Ser Ala Val Gln Gln Tyr Ile Asn Arg

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Asp Arg Asp Asp Glu Ile Cys Gly His Ala Ser Ser Ser Arg Gln Leu

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Lys Ser Leu Val Arg Thr Ile Phe Asn Ser Asp Asn Ser Leu Ser Glu

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Leu Ser Lys Ser Val Gln Leu Leu Pro Cys Ile Ile Gly Asp Ser Ser

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Thr Met Cys Ser Lys Glu Leu Leu Asp Lys Leu Val Gln Leu Lys Asn

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Glu Ile Leu Thr Glu Val Thr Asn Tyr Glu Lys Ser Ser Ser Leu Ser

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Leu Asn Gln Gln Gln Gln Leu Ile Asn Asn Leu Asn Gln Val Val Cys

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Val Tyr Tyr Leu Gln Asp Tyr Val Arg Asn Leu Pro Phe Ala Asn Glu

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Arg Lys Leu Met Asp Ser Ser Lys Gln Asp Glu Ser Asn Asn Leu Leu

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Pro Arg Ala Leu Asp Phe Asn Gln Val Val Glu Asp Pro Ser Asn Thr

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Thr Ile Asn Asn Ser Met Ile Asp Phe Asn Val Asp Leu Gln Leu Tyr

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Gly Asp Leu Leu Ile Ser Lys Leu Thr Lys Gly Ser Pro Asn Pro Ile

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Phe Met Arg Leu Pro Leu Ser Arg Phe Pro Ser Ser Leu Gly Phe Gln

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Gln Leu Met Gln Asn Phe Glu Lys Ile Ile Asp Asp Ser Asn Leu Ser

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Thr Lys Arg Lys Thr Thr Ser Lys Ile Leu Thr Val Glu Asp Arg Lys

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525

Gln Trp Trp Arg Ser Arg Phe Thr Leu Asp Phe Gln Leu Gln Asp Ile

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540

Leu His His Val Glu Ser Lys Trp Phe Gly Gly Phe Ile Ser Gly Ile

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560

Phe Thr Asn Asp Asn Asp Val Glu Asn Glu Ser Lys Asn Val Phe His

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Lys Phe Lys Gln Asp Leu Met Lys Ile Leu Lys Asp Cys Leu Thr Val

580

585

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Ser Asp Asp Lys Ser Asn Ile Glu Arg Phe Leu Gln Phe Asn Glu Phe

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Ile Tyr Tyr Cys Phe Tyr Ser Met Glu Glu Tyr Asn Tyr Glu Leu Val

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Asp Asp Leu Ile Lys Phe Ile Thr Ile Asn Met Asn Ser His Gly Arg
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Ile Val Asn Phe Gly Thr Asn Val Lys Ile Asn Lys Leu His Glu Leu
645 650 655

Ile Lys Asn Leu Ile Asp Lys Val Asn Lys Asn Lys Gln Asn Val Thr
660 665 670

Ser Asn Asn Lys Asn Asn Ser Asn Asn Asn Ser Asn Asn Asn Ser Asn
675 680 685

Ser Asn Asn Ser Gln His Ile Val Leu Ile Pro Asn Ala Asn Cys Ser
690 695 700

Asn Phe Pro Trp Glu Ser Met Glu Phe Leu Arg Ser Lys Ser Ile Ser
705 710 715 720

Arg Met Pro Ser Ile His Met Leu Leu Asp Leu Val Lys Ser Asn Thr
725 730 735

Asn Asn Lys Asn Lys Leu Met Phe Val Asp Lys Ser Asn Leu Tyr Tyr
740 745 750

Leu Ile Asn Pro Ser Gly Asp Leu Ile Arg Ser Glu Asn Arg Phe Lys
755 760 765

Lys Leu Phe Glu Ser Asn His Leu Trp Arg Gly Glu Ile Gly Lys Leu

770

775

780

Ser Ser Asn Glu His Glu Asp Tyr Gln Asp Ser Ile Leu Cys Glu Ile

785

790

795

800

Leu Lys Ser His Leu Phe Val Tyr Ile Gly His Gly Gly Cys Asp Gln

805

810

815

Tyr Ile Lys Val Ser Lys Leu Phe Lys Lys Cys Gly Asn Asn Gln Asp

820

825

830

Leu Ser Asn Lys Leu Pro Pro Ser Leu Leu Leu Gly Cys Ser Ser Val

835

840

845

Lys Leu Asp Asn Cys Asn Tyr Asn Tyr Asn Ser Ser Met Leu Gln Pro

850

855

860

Ser Gly Asn Ile Tyr Asn Trp Leu Asn Cys Lys Ser Ser Met Ile Leu

865

870

875

880

Gly Asn Leu Trp Asp Val Thr Asp Lys Asp Ile Asp Ile Phe Thr Leu

885

890

895

Ser Leu Leu Gln Lys Trp Gly Leu Ile Asp Asp Tyr Asn Gly Ser Gly

900

905

910

His Asp Tyr Gly Met Lys Lys Leu Asp Leu Thr Asn Cys Val Val Gln

915

920

925

Ser Arg Ser Lys Cys Thr Leu Lys Tyr Leu Asn Gly Ser Ala Pro Val

930

935

940

Val Tyr Gly Leu Pro Met Tyr Leu Lys

945

950

<210> 31

<211> 1443

<212> DNA

<213> Candida albicans

<400> 31

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 ggtagaaagg gaacagctat aaacttgata actaaagatg atgtgggtcac tttaaaagaa 1380
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 taa 1443

<210> 32

<211> 399

<212> PRT

<213> *Candida albicans*

<400> 32

Met Asp Asp Phe Asp Arg Asp Leu Asp Asn Glu Leu Glu Phe Ser His

1 5 10 15

Lys Ser Thr Lys Gly Ile Lys Val His Arg Thr Phe Glu Ser Met Asn

20 25 30

Leu Lys Pro Asp Leu Leu Lys Gly Ile Tyr Ala Tyr Gly Phe Glu Ala

35 40 45

Pro Ser Ala Ile Gln Ser Arg Ala Ile Met Gln Ile Ile Ser Gly Arg

50 55 60

Asp Thr Ile Ala Gln Ala Gln Ser Gly Thr Gly Lys Thr Ala Thr Phe
65 70 75 80

Ser Ile Gly Met Leu Glu Val Ile Asp Thr Lys Ser Lys Glu Cys Gln
85 90 95

Ala Leu Ile Leu Ser Pro Thr Arg Glu Leu Ala Ile Gln Ile Gln Asn
100 105 110

Val Val Met His Leu Gly Asp Tyr Met Asn Ile His Thr His Ala Cys
115 120 125

Ile Gly Gly Lys Asn Val Gly Glu Asp Val Lys Lys Leu Gln Gln Gly
130 135 140

Gln Gln Ile Val Ser Gly Thr Pro Gly Arg Val Ile Asp Val Ile Lys
145 150 155 160

Arg Arg Asn Leu Gln Thr Arg Asn Ile Lys Val Leu Ile Leu Asp Glu
165 170 175

Ala Asp Glu Leu Phe Thr Lys Gly Phe Lys Glu Gln Ile Tyr Glu Ile
180 185 190

Tyr Lys His Leu Pro Pro Ser Val Gln Val Val Val Val Ser Ala Thr
195 200 205

Leu Pro Arg Glu Val Leu Glu Met Thr Ser Lys Phe Thr Thr Asp Pro

210

215

220

Val Lys Ile Leu Val Lys Arg Asp Glu Ile Ser Leu Ser Gly Ile Lys

225

230

235

240

Gln Tyr Tyr Val Gln Cys Glu Arg Glu Asp Trp Lys Phe Asp Thr Leu

245

250

255

Cys Asp Leu Tyr Asp Asn Leu Thr Ile Thr Gln Ala Val Ile Phe Cys

260

265

270

Asn Thr Lys Leu Lys Val Asn Trp Leu Ala Asp Gln Met Lys Lys Gln

275

280

285

Asn Phe Thr Val Val Ala Met His Gly Asp Met Lys Gln Asp Glu Arg

290

295

300

Asp Ser Ile Met Asn Asp Phe Arg Arg Gly Asn Ser Arg Val Leu Ile

305

310

315

320

Ser Thr Asp Val Trp Ala Arg Gly Ile Asp Val Gln Gln Val Ser Leu

325

330

335

Val Ile Asn Tyr Asp Leu Pro Thr Asp Lys Glu Asn Tyr Ile His Arg

340

345

350

Ile Gly Arg Ser Gly Arg Phe Gly Arg Lys Gly Thr Ala Ile Asn Leu

355

360

365

Ile Thr Lys Asp Asp Val Val Thr Leu Lys Glu Leu Glu Lys Tyr Tyr

370

375

380

Ser Thr Lys Ile Lys Glu Met Pro Met Asn Ile Asn Asp Ile Met

385

390

395

<210> 33

<211> 825

<212> DNA

<213> Candida albicans

<400> 33

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gacggagggtg catgggaaaa ctatgaacga atgatcagtg gtatgctcta caactgttta 180
caaaaagaat tggaaacaac acgtatgtct tgcagagact acatggttga ctacggcagt 240
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<210> 34

<211> 206

<212> PRT

<213> Candida albicans

<400> 34

Met Ile Ser Gly Met Leu Tyr Asn Cys Leu Gln Lys Glu Leu Glu Thr

1 5 10 15

Thr Arg Met Ser Cys Arg Asp Tyr Met Leu Asp Tyr Gly Ser Phe Arg

20 25 30

Thr Arg Asp Tyr Lys Thr Thr Gln Glu Phe Leu Asp Ala Lys Tyr Lys

35 40 45

His Leu Glu Ser Phe Ile Gly His Val Gly Lys Asn Ala Phe Met Glu

50 55 60

Tyr Pro Ile Tyr Phe Asp Tyr Gly Phe Asn Thr Tyr Leu Gly Asp Asn

65 70 75 80

Phe Tyr Ser Asn Tyr Asn Leu Thr Ile Leu Asp Val Ser Ile Val Arg

85 90 95

Ile Gly Asn Asn Val Lys Cys Gly Pro Asn Val Ser Ile Leu Thr Pro

100 105 110

Thr His Pro Val Asp Pro Thr Leu Arg Tyr Asp Gln Leu Glu Asn Ala

115

120

125

Leu Pro Val Thr Val Gly Asn Gly Val Trp Leu Cys Gly Ser Cys Thr

130

135

140

Ile Leu Gly Gly Val Thr Val Gly Asp Gly Ser Ile Val Ala Ala Gly

145

150

155

160

Ala Val Val Asn Lys Asp Val Pro Pro Asn Thr Val Val Ala Gly Val

165

170

175

Pro Ala Arg Val Val Lys Gln Leu Glu Pro Arg Asp Pro Asn Phe Asp

180

185

190

Thr Met Ala Val Leu Lys Gln Tyr Gly Met Gly Tyr Ile Asp

195

200

205

<210> 35

<211> 823

<212> DNA

<213> Candida albicans

<400> 35

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ttttaatttt attggccggt agattcagag gtaaaagagt tgtttacttg aagaacttgg 180
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 aaaaatctgt cgatgctgct ttattaagtg aaatcaaaaa gacccatta ttgaaacaat 480
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 ttgtttaata atggaaggta ttggctcaga tgaacttcaa aatggagatt acttttttct 720
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 ggtgtatctt aactcttatt cattttgtat atttaataca tat 823

<210> 36

<211> 176

<212> PRT

<213> Candida albicans

<400> 36

Met Ser Gln Val Ala Pro Lys Trp Tyr Gln Ser Glu Asp Val Pro Ala

1

5

10

15

Pro Lys Gln Thr Arg Lys Thr Ala Arg Pro Gln Lys Leu Arg Ala Ser

20

25

30

Leu Val Pro Gly Thr Val Leu Ile Leu Leu Ala Gly Arg Phe Arg Gly

35

40

45

Lys Arg Val Val Tyr Leu Lys Asn Leu Glu Asp Asn Thr Leu Leu Val

50

55

60

Ser Gly Pro Phe Lys Val Asn Gly Val Pro Leu Arg Arg Val Asn Ala
 65 70 75 80

Arg Tyr Val Ile Ala Thr Ser Thr Lys Val Asn Val Ser Gly Val Asp
 85 90 95

Val Ser Lys Phe Asn Val Glu Tyr Phe Ala Arg Glu Lys Ser Ser Lys
 100 105 110

Ser Lys Lys Ser Glu Ala Glu Phe Phe Asn Glu Ser Gln Pro Lys Lys
 115 120 125

Glu Ile Lys Ala Glu Arg Val Ala Asp Gln Lys Ser Val Asp Ala Ala
 130 135 140

Leu Leu Ser Glu Ile Lys Lys Thr Pro Leu Leu Lys Gln Tyr Leu Ala
 145 150 155 160

Ala Ser Phe Ser Leu Lys Asn Gly Asp Arg Pro His Leu Leu Lys Phe
 165 170 175

<210> 37

<211> 415

<212> DNA

<213> Candida albicans

<400> 37

aacattaaag caagatggaa aacgataaag gtcaattagt tgaattatac gtcccaagaa 60
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 ttgctaaagt tgatgaagac ggtagagcta ttgctggtga aaacatcact tacgctttaa 180
 gtggttacgt tagaggtaga ggtgaagctg atgactcatt aaacagattg gctcaacaag 240
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 ttgataattg ggtatttttaa gaaattactt tttttatatt gcaaattaat tttaatcttt 360
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<210> 38

<211> 87

<212> PRT

<213> Candida albicans

<400> 38

Met Glu Asn Asp Lys Gly Gln Leu Val Glu Leu Tyr Val Pro Arg Lys

1

5

10

15

Cys Ser Ala Thr Asn Arg Ile Ile Lys Ala Lys Asp His Ala Ser Val

20

25

30

Gln Ile Ser Ile Ala Lys Val Asp Glu Asp Gly Arg Ala Ile Ala Gly

35

40

45

Glu Asn Ile Thr Tyr Ala Leu Ser Gly Tyr Val Arg Gly Arg Gly Glu

50

55

60

Ala Asp Asp Ser Leu Asn Arg Leu Ala Gln Gln Asp Gly Leu Leu Lys

65

70

75

80

Asn Val Trp Ser Tyr Ser Arg

85

<210> 39

<211> 1685

<212> DNA

<213> Candida albicans

<400> 39

ctgtttatta aatggatata tgtaaacca tgaacttcgg tttatcagaa aaattggtgc 60
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 taaaatgggt cttgaacagc cattactcaa acaaaagcaa caacaacaac aaagtcata 180
 tggacataaa ggagaatcta gtatgaacaa acaaataata ctgcaagaat tttatcaata 240
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 aaacatagcg actattcatc aagtattaaa cattgaagat tttgccataa taatattgat 420
 ggatcatttt gagcaaggag atttgttcac taatatcatt gatagacaaa tattcaccaa 480
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 tatag 1685

<210> 40

<211> 537

<212> PRT

<213> Candida albicans

<400> 40

Met Leu Asn His Glu Leu Arg Phe Ile Arg Lys Ile Gly Ala Gly Thr

1

5

10

15

Tyr Gly Leu Ile Tyr Leu Val Glu Asn Ile Tyr Thr Lys Gln Gln Phe

20

25

30

Ala Ala Lys Met Val Leu Glu Gln Pro Leu Leu Lys Gln Lys Gln Gln

35

40

45

Gln Gln Gln Ser His His Gly His Lys Gly Glu Ser Ser Met Asn Lys

50

55

60

Gln Ile Ile Ser Gln Glu Phe Tyr Gln Tyr Phe Leu Asn Asn Ser Met

65

70

75

80

Pro Gln Pro Arg Asn Leu Asp Leu Asn Tyr Leu Arg Asp Asn Gly His

85

90

95

Asp Cys Pro Phe Leu Thr Glu Ile Ser Leu His Leu Lys Val His Gln

100

105

110

His Pro Asn Ile Ala Thr Ile His Gln Val Leu Asn Ile Glu Asp Phe

115

120

125

Ala Ile Ile Ile Leu Met Asp His Phe Glu Gln Gly Asp Leu Phe Thr

130

135

140

Asn Ile Ile Asp Arg Gln Ile Phe Thr Asn Asn Ser His Arg Lys Val

145

150

155

160

Pro Arg Thr Asp Phe Glu Thr Gln Leu Leu Met Lys Asn Ala Met Leu

165

170

175

Gln Leu Ile Glu Ala Ile Glu Tyr Cys His Glu Asn Asn Ile Tyr His

180

185

190

Cys Asp Leu Lys Pro Glu Asn Ile Met Val Arg Tyr Asn Pro Tyr Tyr

195

200

205

Val Arg Pro Thr Ile Asn Asn Asn Asn Asn Asn Gly Glu Asp Asp Leu

210

215

220

Cys Tyr Ala Asn Ser Ile Ile Asp Tyr Asn Glu Leu His Leu Val Leu

225

230

235

240

Ile Asp Phe Gly Leu Ala Met Asp Ser Ala Thr Ile Cys Cys Asn Ser

245

250

255

Cys Arg Gly Ser Ser Phe Tyr Met Ala Pro Glu Arg Thr Thr Asn Tyr

260

265

270

Asn Thr His Arg Leu Ile Asn Gln Leu Ile Asp Met Asn Gln Tyr Glu

275

280

285

Ser Ile Glu Ile Asn Gly Thr Thr Val Thr Lys Ser Asn Cys Lys Tyr

290

295

300

Leu Pro Thr Leu Ala Gly Asp Ile Trp Ser Leu Gly Val Leu Phe Ile

305

310

315

320

Asn Ile Thr Cys Ser Arg Asn Pro Trp Pro Ile Ala Ser Phe Asp Asn

325

330

335

Asn Gln Asn Asn Glu Val Phe Lys Asn Tyr Met Leu Asn Asn Asn Lys

340

345

350

Ala Val Leu Ser Lys Ile Leu Pro Ile Ser Ser Gln Phe Asn Arg Leu
355 360 365

Leu Asp Arg Ile Phe Lys Leu Asn Pro Asn Asp Arg Ile Asp Leu Pro
370 375 380

Thr Leu Tyr Lys Glu Val Ile Arg Cys Asp Phe Phe Lys Asp Asp His
385 390 395 400

Tyr Tyr Tyr Ala Gln His Gln His His His Asn His Asn Gln Ile Asn
405 410 415

Asn Ala Tyr Asn His Tyr Gln Lys Gln Pro Asn Gln Ala Arg Pro Thr
420 425 430

Ala Asn Gln Gln Leu Tyr Thr Pro Pro Glu Thr Thr Thr Tyr Asn Ser
435 440 445

Tyr Ala Ser Asp Met Glu Glu Asp Glu Ile Ser Asp Asp Glu Phe Tyr
450 455 460

Ser Asp Glu Glu Asp Glu Asp Ile Glu Asp Tyr Glu Glu Glu Glu Glu
465 470 475 480

Glu Tyr Phe Gly Asn Glu Gln Gln Gln Gln Gln Gln Val Thr Thr Val
485 490 495

Asn Gly Asn Phe Gly Gln Val Lys Gly Thr Cys Tyr Tyr Asp Thr Lys

500

505

510

Thr Lys Thr Thr Thr Tyr Ile Lys Pro Pro Ala Ala Tyr Thr Leu Glu

515

520

525

Thr Pro Ser Gln Ser Val Glu Tyr Cys

530

535

<210> 41

<211> 848

<212> DNA

<213> Candida albicans

<400> 41

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ccattgggtgc cgaacaagct gaaaaaacca gaatcttgta cgggtggttca gttaacggta 660
agaacgctaa ggatttcaaa gacaaagcaa atgttgatgg tttcttagtc ggtgggtgctt 720
cattaaaacc agaatttggt gatatcatca aatctagatt ataaacagta tattaataaac 780

tatatgccta tagaatttag catgttggtg tgaatttgta atgaatctat aaaaatgtgc 840
tcatgaac 848

<210> 42

<211> 248

<212> PRT

<213> Candida albicans

<400> 42

Met Ala Arg Gln Phe Phe Val Gly Gly Asn Phe Lys Ala Asn Gly Thr

1 5 10 15

Lys Gln Gln Ile Thr Ser Ile Ile Asp Asn Leu Asn Lys Ala Asp Leu

20 25 30

Pro Lys Asp Val Glu Val Val Ile Cys Pro Pro Ala Leu Tyr Leu Gly

35 40 45

Leu Ala Val Glu Gln Asn Lys Gln Pro Thr Val Ala Ile Gly Ala Gln

50 55 60

Asn Val Phe Asp Lys Ser Cys Gly Ala Phe Thr Gly Glu Thr Cys Ala

65 70 75 80

Ser Gln Ile Leu Asp Val Gly Ala Ser Trp Thr Leu Thr Gly His Ser

85 90 95

Glu Arg Arg Thr Ile Ile Lys Glu Ser Asp Glu Phe Ile Ala Glu Lys

100 105 110

Thr Lys Phe Ala Leu Asp Thr Gly Val Lys Val Ile Leu Cys Ile Gly

115

120

125

Glu Thr Leu Glu Glu Arg Lys Gly Gly Val Thr Leu Asp Val Cys Ala

130

135

140

Arg Gln Leu Asp Ala Val Ser Lys Ile Val Ser Asp Trp Ser Asn Ile

145

150

155

160

Val Val Ala Tyr Glu Pro Val Trp Ala Ile Gly Thr Gly Leu Ala Ala

165

170

175

Thr Pro Glu Asp Ala Glu Glu Thr His Lys Gly Ile Arg Ala His Leu

180

185

190

Ala Lys Thr Ile Gly Ala Glu Gln Ala Glu Lys Thr Arg Ile Leu Tyr

195

200

205

Gly Gly Ser Val Asn Gly Lys Asn Ala Lys Asp Phe Lys Asp Lys Ala

210

215

220

Asn Val Asp Gly Phe Leu Val Gly Gly Ala Ser Leu Lys Pro Glu Phe

225

230

235

240

Val Asp Ile Ile Lys Ser Arg Leu

245

<210> 43

<211> 550

<212> PRT

<213> Candida albicans

<400> 43

Met Ser Leu Asp Asn Ser Thr Glu Asn Arg Asp Leu Glu Glu Lys Glu

1 5 10 15

Glu Ile Pro Lys Asn Glu His Asn Glu Gln Gly Glu Gln Asn Glu Asn

20 25 30

Asn Glu His Ile Pro Thr Leu Glu Asp Lys Pro Leu Lys Glu Tyr Ile

35 40 45

Gly Ile Ser Ile Leu Cys Phe Leu Ile Ala Phe Gly Gly Phe Val Phe

50 55 60

Gly Phe Asp Thr Gly Thr Ile Ser Gly Phe Ile Asn Met Thr Asp Phe

65 70 75 80

Leu Glu Arg Phe Gly Gly Thr Lys Ala Asp Gly Thr Leu Tyr Phe Ser

85 90 95

Asn Val Arg Thr Gly Leu Leu Ile Gly Leu Phe Asn Val Gly Cys Ala

100 105 110

Ile Gly Ala Leu Phe Leu Ser Lys Val Gly Asp Met Tyr Gly Arg Arg

115

120

125

Val Gly Ile Met Thr Ala Met Ile Ile Tyr Ile Val Gly Ile Ile Val

130

135

140

Gln Ile Ala Ser Gln His Ala Trp Tyr Gln Ile Met Ile Gly Arg Ile

145

150

155

160

Ile Thr Gly Leu Ala Val Gly Met Leu Ser Val Leu Cys Pro Leu Phe

165

170

175

Ile Ser Glu Val Ser Pro Lys His Leu Arg Gly Thr Leu Val Tyr Cys

180

185

190

Phe Gln Leu Met Ile Thr Leu Gly Ile Phe Leu Gly Tyr Cys Thr Ser

195

200

205

Tyr Gly Thr Lys Lys Tyr Ser Asp Ser Arg Gln Trp Arg Ile Pro Leu

210

215

220

Gly Leu Cys Phe Ala Trp Ala Leu Cys Leu Leu Gly Gly Met Val Arg

225

230

235

240

Met Pro Glu Ser Pro Arg Tyr Leu Val Gly Lys Asp Arg Ile Asp Asp

245

250

255

Ala Lys Ile Ser Leu Ala Lys Thr Asn Lys Val Ser Pro Glu Asp Pro

260

265

270

Ala Leu Tyr Arg Glu Leu Gln Leu Ile Gln Ala Gly Val Glu Arg Glu

275

280

285

Arg Leu Ala Gly Lys Ala Ser Trp Gly Ala Leu Ile Thr Gly Lys Pro

290

295

300

Arg Ile Leu Glu Arg Val Ile Val Gly Gly Met Leu Gln Ser Leu Gln

305

310

315

320

Gln Leu Thr Gly Asp Asn Tyr Phe Phe Tyr Tyr Ser Thr Thr Ile Phe

325

330

335

Lys Ser Val Gly Leu Asn Asp Ser Phe Glu Thr Ser Ile Ile Leu Gly

340

345

350

Val Ile Asn Phe Ala Ser Thr Phe Val Gly Ile Tyr Ala Ile Glu Arg

355

360

365

Leu Gly Arg Arg Leu Cys Leu Leu Thr Gly Ser Val Ala Met Ser Ile

370

375

380

Cys Phe Leu Ile Tyr Ser Leu Ile Gly Thr Gln His Leu Tyr Ile Asp

385

390

395

400

Gln Pro Gly Gly Pro Thr Arg Lys Pro Asp Gly Asn Ala Met Ile Phe

405

410

415

Ile Thr Ala Leu Tyr Val Phe Phe Phe Ala Ser Thr Trp Ala Gly Gly

420

425

430

Val Tyr Ser Ile Val Ser Glu Leu Tyr Pro Leu Lys Val Arg Ser Lys

435

440

445

Ala Met Gly Phe Ala Asn Ala Cys Asn Trp Leu Trp Gly Phe Leu Ile

450

455

460

Ser Phe Phe Thr Ser Phe Ile Thr Asp Ala Ile His Phe Tyr Tyr Gly

465

470

475

480

Phe Val Phe Met Gly Cys Leu Val Phe Ser Ile Phe Phe Val Tyr Phe

485

490

495

Met Ile Tyr Glu Thr Lys Gly Leu Thr Leu Glu Glu Ile Asp Glu Leu

500

505

510

Tyr Ser Thr Lys Val Val Pro Trp Lys Ser Ala Gly Trp Val Pro Pro

515

520

525

Ser Asp Glu Glu Met Val Arg Ala Lys Gly Tyr Thr Gly Asp Ile His

530

535

540

Ala Asp Glu Glu Gln Val

545

550

<211> 508

<212> DNA

<213> Candida albicans

<400> 44

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<210> 45

<211> 863

<212> DNA

<213> Candida albicans

<400> 45

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<210> 46

<211> 925

<212> DNA

<213> Candida albicans

<400> 46

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<210> 47

<211> 78

<212> PRT

<213> Candida albicans

<400> 47

Met Gly Ala Thr Cys Pro Leu Arg Lys Val Ala Thr His Arg Asn Gly

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Leu Pro Ile Trp Glu Ala Ser Arg Ala Thr Arg Ala Thr Lys Val Leu

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Trp Glu Ser Trp Val Gln Tyr Thr Leu Leu Arg Asn Glu Leu Pro Ile

35 40 45

Arg Glu Ala Ser Arg Ala Thr Arg Ala Arg Phe Gln Leu Pro Ile Arg

50 55 60

Glu Ala Ser Arg Ala Thr Arg Ala Gly Phe Gln Leu Pro Ile

65 70 75

<210> 48

<211> 81

<212> PRT

<213> Candida albicans

<400> 48

Met Gly Tyr Arg Phe Gly Lys Leu Val Gly Leu Pro Glu Leu Pro Lys

1

5

10

15

Tyr Cys Gly Arg Val Gly Tyr Ser Thr His Cys Tyr Ala Met Ser Tyr

20

25

30

Gln Phe Gly Lys Leu Val Gly Leu Pro Glu Leu Gly Ser Ser Tyr Gln

35

40

45

Phe Gly Lys Leu Val Glu Leu Pro Glu Ser Gly Ser Ser Tyr Arg Phe

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55

60

Arg Lys Cys Val Ala Ser Arg Ala Thr Lys Tyr Gly Trp Gln His Ile

65

70

75

80

Trp

<210> 49

<211> 759

<212> DNA

<213> Candida albicans

<400> 49

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<210> 50

<211> 902

<212> DNA

<213> *Candida albicans*

<400> 50

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 gtgacagctc tcaacatggc caactctgct gacgatctag caaaagtttt caaagattcg 180
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 aacattccat ttcttaatgg tagtgtcaaa ttgtattcga taattctacg taccaatggg 300
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 aatgatagcg atgatcttcc agagtttttg gaatcaaata acgatgacga ttttgtcgaa 480
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<210> 51

<211> 233

<212> PRT

<213> Candida albicans

<400> 51

Met Ser Cys Glu Asp Glu His His Asn His Asn His Gly His Asn Gln

1

5

10

15

Asn His Asn His Val Ala Pro Ile Pro Thr Thr Ala Gly Gln Ser Leu

20

25

30

Asn Asn Lys Ile Asp Thr Ser Lys Val Thr Ala Leu Asn Met Ala Asn

35

40

45

Ser Ala Asp Asp Leu Ala Lys Val Phe Lys Asp Ser Thr Lys Lys Tyr

50

55

60

Gln Ile Lys Pro Ile Ile Lys Ser Asp Ser Asp Glu Gln Met Ile Ile

65

70

75

80

Asn Ile Pro Phe Leu Asn Gly Ser Val Lys Leu Tyr Ser Ile Ile Leu
85 90 95

Arg Thr Asn Gly Asp Leu Tyr Cys Pro Lys Thr Ile Lys Leu Phe Lys
100 105 110

Asn Asp Thr Ser Ile Asp Phe Asp Asn Val Asp Ser Lys Lys Pro Ile
115 120 125

Gln Val Leu Thr His Pro Gln Val Gly Val Ala Asn Asn Asp Ser Asp
130 135 140

Asp Leu Pro Glu Phe Leu Glu Ser Asn Asn Asp Asp Asp Phe Val Glu
145 150 155 160

His Tyr Val Ser Arg His Lys Phe Thr Gly Val Asn Gln Leu Thr Ile
165 170 175

Phe Ile Glu Asp Ile Tyr Asp Glu Gly Glu Glu Glu Cys His Leu His
180 185 190

Ser Ile Glu Leu Arg Gly Glu Phe Thr Glu Leu Asn Lys Asp Pro Val
195 200 205

Ile Thr Leu Tyr Glu Ser Ala Ala Asn Pro Ala Asp His Lys Asn Leu
210 215 220

Thr Ile Val Glu Asn Gln Asn Leu Ala
225 230

<210> 52

<211> 1833

<212> DNA

<213> *Candida albicans*

<400> 52

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<210> 53

<211> 610

<212> PRT

<213> Candida albicans

<400> 53

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Ile Ser Gly Pro Tyr Gln Glu Glu Asp Thr Pro Ile Lys Arg Leu His

20 25 30

Ser Ile Pro Ala Ser Thr Ser Glu Asp Glu Asp Glu Leu Asp Pro Glu

35 40 45

Glu Phe Ile Leu Asn Lys Val Asp Lys Pro Ala Thr Lys Asp Ser His

50 55 60

Val Ser Tyr Asn Lys Phe Ser Asp Lys His Ile Ser Asp Glu Gln Leu

65

70

75

80

Ser His Leu Leu Asp Asn His Lys Pro Asn Leu Val Thr Thr Thr Thr

85

90

95

Leu Ile Asp Ser Ile Lys Glu Ser Glu Ser Leu Tyr Asn Thr Met Asp

100

105

110

Ser Leu Met Ile Lys Ser Ile Asn Phe Pro Ala Ala Met Tyr Gln Ser

115

120

125

Asn Asp Asn Asn Ser Gln Ser Pro Ile Glu Tyr Leu Ser Asn Arg Val

130

135

140

Lys Leu Leu Thr Gln Glu Leu Tyr Glu Asp Ser Val Lys Tyr Gly Lys

145

150

155

160

Phe Leu Gln Ser Gly Asn Asn His Ile Tyr Gln Leu Arg Ser Arg Ile

165

170

175

Leu Gln Thr Phe Asp Gln Leu Ser Glu Ser His Tyr Ser Leu Asn Glu

180

185

190

Leu Tyr Asn Lys Asp Met Ser Tyr Ala Glu Thr Leu His Gly Ser Phe

195

200

205

Lys Lys Trp Asp Gln Gln Arg Asn Lys Val Leu Ser Lys Val Lys Ser
210 215 220

Ile Lys Ser Asp Thr Ser Lys His Gly Ala Lys Leu Phe Thr Leu Leu
225 230 235 240

Asp Glu Val Asn Asp Val Asp Asp Glu Ile Lys Leu Leu Glu Ala Lys
245 250 255

Leu Gln Gln Leu Arg Ser Lys Lys Glu Ile Leu Asn Lys Glu Ile Glu
260 265 270

Asp Thr Ser Ser Val Leu Glu Ser Arg Thr Ala Lys Tyr Val Asp Ile
275 280 285

Phe Lys Asp Leu Glu Asn Lys Gly Arg Ser Ala Ile Thr Asp Phe Leu
290 295 300

Gln Ser Asn Gly Val Pro Glu Lys Glu Ile Asp Thr Ile Val Arg Phe
305 310 315 320

Ser Pro Val Asp Ile Thr Ile Ser Ser Asn Tyr Ser Ser Lys Lys Glu
325 330 335

Pro Lys Lys Glu Ile His Ile Thr Lys Glu Ser Ile Pro Gln Asn Glu
340 345 350

Ser Ala Ser Lys Pro Ala Asn Thr Pro Ser Ile Gly Met Gln Pro Phe
355 360 365

Ile Ile Pro Glu Ala Glu Ala Asn Thr Lys Thr Pro Asp Leu Gln Ser

370

375

380

Met Asn His Asp His Gly Pro Thr Pro Phe Glu Lys Gly Tyr Ala Met

385

390

395

400

Gly Thr Gln Asn Ser Thr Ala Leu Lys Asn Lys Met Asn His Ile Met

405

410

415

Lys Lys Phe Leu Asp Ser Leu Pro Ile Thr Pro Pro Ser Asn Ile Ser

420

425

430

Thr Met Pro Ala Thr Ser Arg Ile Lys Val Asp Asp Leu Ser Asn Thr

435

440

445

Ile Ser Lys Arg Leu Asp Leu Asp Pro Ile Met Val Phe Leu Glu His

450

455

460

Lys Val Ala Ala Leu His Asp Leu Ala Ile Lys Ser Ser Gln Asn Ala

465

470

475

480

Ala Leu Phe His Glu Phe Gly Arg Ile Trp Glu Ser Val Thr Lys Leu

485

490

495

Met Asn Ser Gln Glu Glu Lys Leu Glu Ser Ile Leu Asn Asp Asp Ser

500

505

510

Asn Ser Lys Leu Val Thr Arg Ile Leu Asn Ser Thr Leu Glu Gln Leu
515 520 525

Lys Ser Thr Leu Ser Ala Leu Lys Ser Asn Pro Val Thr Ser Gly Ser
530 535 540

Pro Arg Asp Glu Val Leu Ile Ser Leu Ile Thr Ser Glu Tyr Asn Ala
545 550 555 560

Ile Glu Gln Ala Val Lys Leu Val Ser Pro Asp Leu Arg Thr Ile Gly
565 570 575

Glu Leu Asn Ser Ser Gly Gly Leu Pro Pro Ser Ser Ser Lys Pro Thr
580 585 590

Ser Gln Val Tyr Pro Val Ser Thr Ser Asp Thr Lys Ser Thr Thr Lys
595 600 605

Met Glu
610

<210> 54

<211> 75

<212> PRT

<213> Candida albicans

<400> 54

Met Ser Thr Tyr Phe Ala Val Ser Leu Ser Lys Thr Ser Ser Val Ser

1

5

10

15

Ser Ile Ser Leu Phe Lys Ile Ser Phe Leu Asp Arg Ser Cys Cys Ser

20

25

30

Phe Ala Ser Lys Ser Leu Ile Ser Ser Ser Thr Ser Leu Thr Ser Ser

35

40

45

Asn Lys Val Asn Asn Leu Ala Pro Cys Leu Leu Val Ser Leu Phe Ile

50

55

60

Asp Phe Thr Leu Asp Asn Thr Leu Phe Leu Cys

65

70

75

<210> 55

<211> 1164

<212> DNA

<213> Candida albicans

<400> 55

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<210> 56

<211> 297

<212> PRT

<213> Candida albicans

<400> 56

Met Ser Thr Ile Thr Ile Pro His Asp Ile Glu Ile Gly Gly Ser Thr

1

5

10

15

Tyr Tyr Gln Ile Asn Ile Lys Leu Pro Leu Arg Ser Phe Thr Ile Lys

20

25

30

Lys Arg Tyr Ser Glu Phe Gln Gln Leu Val Ser Asp Leu Ser Arg Asn

35

40

45

Leu Gly Ile Asp Ser Arg Asp Phe Pro Tyr Glu Leu Pro Gly Lys Arg
 50 55 60

Ile Asn Trp Leu Asn Lys Thr Ser Ile Val Glu Glu Arg Lys Val Gly
 65 70 75 80

Leu Ala Glu Phe Leu Asn Asn Leu Ile Gln Asp Ser Thr Leu Gln Asn
 85 90 95

Glu Arg Glu Val Leu Ser Phe Leu Gln Leu Pro Ser Asn Phe Arg Phe
 100 105 110

Thr Lys Asp Met Leu Gln Asn Asn Arg Ala Asp Leu Asp Ser Val Gln
 115 120 125

Asn Asn Trp Tyr Asp Val Tyr Arg Lys Leu Lys Ser Asp Ile Leu Asn
 130 135 140

Glu Ser Ser Ser Ser Ile Ser Glu Gln Ile His Ile Arg Asp Arg Ile
 145 150 155 160

Ser Arg Val Tyr Gln Pro Arg Ile Leu Asp Leu Val Arg Ala Ile Gly
 165 170 175

Thr Asp Lys Glu Glu Ala Leu Lys Lys Lys Gln Leu Val Ser Gln Leu
 180 185 190

Gln Glu Ser Ile Asp Asn Leu Leu Val Gln Glu Val Pro Arg Ser Lys

195

200

205

Arg Val Leu Gly Gly Ala Val Lys Glu Thr Pro Glu Thr Leu Pro Leu

210

215

220

Asn Asn Lys Glu Leu Leu Gln His Gln Val Gln Ile His Gln Asn Gln

225

230

235

240

Asp Lys Glu Leu Asp Gln Leu Arg Val Leu Ile Ala Arg Gln Lys Gln

245

250

255

Ile Gly Glu Leu Ile Asn Ala Glu Val Glu Glu Gln Asn Glu Met Leu

260

265

270

Asp Arg Phe Asn Glu Glu Val Asp Tyr Thr Ser Ser Lys Ile Lys Gln

275

280

285

Ala Arg Arg Arg Ala Lys Lys Ile Leu

290

295

<210> 57

<211> 7707

<212> DNA

<213> Candida albicans

<220>

<221> misc_feature

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<223> "n" = any amino acid

<400> 57

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gaactaagac aaaccgctat tatcactcgg tctgagaaca agactataat agagtattta 480
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60

Ser Leu Arg Phe Arg Leu Trp Gly Asn Ser Lys Met Thr Ile Ile Asp

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Gln Ile Ala Glu Thr Asp Leu Glu Leu Gly Val Ile Asn Lys Met Leu

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Ser Tyr Phe Lys Lys Asn Ile Lys Pro Thr Leu Glu Gln Lys Leu Phe

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970

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Glu Gly Val Lys Ser Gln Thr Ser Thr Ser Lys Asp Ile Thr Ser Gln

1925

1930

1935

Gln Lys Leu Asp Asn Phe Asn Thr Ile Leu Arg Glu Thr Arg Pro Asp

1940

1945

1950

Glu Lys Val Val Glu Asp Tyr Leu Ile Asp Val Ile Ala Pro Gln Ile

1955

1960

1965

Gln Leu Gln Ser Glu Asp Tyr Pro Asp Ser Val Val Leu Ile Ser Thr
 1970 1975 1980

Pro Ser Ile Lys Gly Lys Ile Leu Ser Ile Met Asp Ser Arg Asn Asn
 1985 1990 1995 2000

Ala Asn Gln Ile Leu Leu Glu Thr Arg Tyr Gly Ile Leu Leu Lys Asp
 2005 2010 2015

Ala Asn Val Phe Val Leu Asn Lys Glu Asp Ile Val Gly Cys Pro Asp
 2020 2025 2030

Met Leu Ser Ile Ser Asn Pro Tyr Gly Ala Lys Ser Asn Trp Pro Pro
 2035 2040 2045

Trp Leu Gly Thr Glu Ile Thr Gln Asn Gly Lys Trp Ala Gly Ala Asn
 2050 2055 2060

Asn Leu Leu Ile Glu Lys Leu Ser Val Met Thr Met Cys Tyr Glu Ser
 2065 2070 2075 2080

Glu Ile Leu Ser Ser Lys Leu Ser Pro Asn Ala Gln Asp Ser Asp Gln
 2085 2090 2095

Glu Glu Gln Glu Asn Tyr Asn Asp Asp Asn Ser Lys Gln Ala Pro Leu
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Arg Leu Gly Ile Asp Met Pro Ser Val Val Ile Thr Ser Thr Ser Ser

2115

2120

2125

Gln Tyr Phe Thr Leu Tyr Val Ile Ile Val Ser Leu Leu Phe Tyr Ser

2130

2135

2140

Glu Pro Met Ser Lys Val Ile His Lys Lys Ile Glu Lys Met Lys Phe

2145

2150

2155

2160

Ser Ile Asp Phe Glu Asp Leu Gly Ala Leu Thr Ser Arg Leu Thr Lys

2165

2170

2175

Met Gln Gln His His Lys Leu Leu Lys Val Leu Ser Asn Asn Tyr Ser

2180

2185

2190

Phe Arg Gln Gly Lys Leu Asn Asn Glu Asp Leu Asn Asn Tyr Leu Gln

2195

2200

2205

Val Asn Leu Glu Arg Gly Glu Ile Ala Ser Asp Ile Tyr Leu Leu Leu

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2215

2220

Arg Thr Leu Leu Thr Gly Asp Phe Ala Ser Asp Thr Ser Asn Asn Leu

2225

2230

2235

2240

Ser Met Xaa Trp Leu Ile Arg Ala Asp Glu Ile Ile Leu Gln Ile Leu

2245

2250

2255

Glu Asp Asp Arg Thr Pro Ile Met Asp Leu Ala Leu Ala Gln Gly Met

2260

2265

2270

Tyr Thr Arg Lys Glu Leu Glu Ser Gly Ser Asn Ile Asn Lys Leu His

2275

2280

2285

Ile Gly Thr Met Arg Gly Phe Asn Leu Ile Glu Ser Ala Arg Tyr Pro

2290

2295

2300

Asp Phe Ile Lys Pro Ile Thr Glu Ser Ser Ser Gln Asn Leu Ile Glu

2305

2310

2315

2320

Leu Ala Trp Thr Met Asn Lys Ser Val Gly Gly Ile Lys Ile Ile Glu

2325

2330

2335

Asn Val Phe Val Asn Ala Ala Pro Leu Asn Ile Lys Leu Asp Glu Ile

2340

2345

2350

Thr Gly Asp Lys Leu Met Lys Phe Ile Thr Tyr Ser Asn Ser Gly Asn

2355

2360

2365

Leu Glu Asp Ser Lys Ile Ile Ala Val Ser Asn Glu Lys Asn Lys Asp

2370

2375

2380

Asn Ile Lys Asp Asn Ser Glu Asp Glu Asp Tyr Gly Leu Ile Thr Glu

2385

2390

2395

2400

Asn Glu Gly Ile Asn Lys Gly Pro Lys Phe Glu Glu Met Ser Gln Ser

2405

2410

2415

Ser Asn Met Lys Arg Ser Leu Thr Met Leu Ser Ser Lys Lys Ser Ser

2420

2425

2430

Ser Ser Ala Ser Ser Asn Asp Glu Ile Glu Asp Asn Glu Asp Val Glu

2435

2440

2445

Lys Met Ile Glu Arg Ser Lys Lys Tyr Phe Ser Val Val Ser Leu Asn

2450

2455

2460

Val Asn Ala Ile Thr Leu Glu Val Thr Leu Lys Leu Asn Lys Gly Phe

2465

2470

2475

2480

Lys Arg Ile Leu Asn Val Asn Asp Phe Arg Ile Asp Leu Pro Glu Phe

2485

2490

2495

Asn Ile Thr Asn Glu Ile Val Ser Tyr Met Asp Ile Ser Lys Met Leu

2500

2505

2510

Gln Ser Met Ile Thr Lys Met Ile Leu Gly His Val Gly Arg Leu Leu

2515

2520

2525

Gly Asn Lys Met Lys Ala Thr Lys Gly Lys Ser Lys Lys Ile Met Lys

2530

2535

2540

Lys Arg Lys Arg Ile Arg Ser Ile Ser Asp Val Arg Lys Glu Ile His

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2560

Val Ser Thr Glu Arg Gly Ala Asp

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<210> 59

<211> 2196

<212> DNA

<213> *Candida albicans*

<400> 59

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<211> 731

<212> PRT

<213> Candida albicans

<400> 60

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5

10

15

Asp Gly Phe Asn Gln His His Leu Gly Asp Pro Val Ile Ser Gly Pro

20

25

30

Pro Tyr Ile Ile Lys Leu Leu Asn Leu Pro Val Thr Ala Asn Asp Ser

35

40

45

Phe Val Gln Asp Leu Phe Gln Ser Arg Phe Thr Pro Tyr Val Lys Phe

50

55

60

Lys Ile Val Thr Asp Pro Ala Ser Asn Ile Leu Glu Thr His Val Ile

65

70

75

80

Arg Gln Val Ala Phe Val Glu Leu Glu Ser Ala Ser Asp Met Ser Lys

85

90

95

Ala Leu Lys Trp His Asp Leu Tyr Tyr Lys Thr Asn Arg Arg Val Thr

100

105

110

Val Glu Val Ala Asp Phe Asn Asp Phe Gln Asn Cys Ile Lys Phe Asn

115

120

125

Gln Glu His Glu Arg Glu Ile Met Gln Ile Gln Gln Glu Phe Ile Ala

130

135

140

Gln Lys Gln Gln Gln Arg Gln Pro Arg His Met Ala Leu Leu Asp Glu

145

150

155

160

Phe Glu Arg Asn Gln Arg Gly Pro Gly Ser Pro Leu His Gln Asn His

165

170

175

Asp His His Asn Pro His Pro Gln Gln Gln Gln His His His Phe Asn

180

185

190

Pro Asn Leu Asn Arg Pro Ser Gly Arg Ser Ser Leu Pro Ile Asp Glu

195

200

205

Thr Ser His Ser Arg Arg Leu Ser Phe Glu Ala Gln Leu His Pro His

210

215

220

Gln Gln Thr His Gly Gln Arg Ile Arg Gln Pro Ser Phe Asp Asn Ala

225

230

235

240

Phe Pro Asp Thr Pro His Pro Pro Phe Gly Gly Gly Gly Gly Met Arg

245

250

255

Gln Gln Ile His Pro Thr Asn Gln Pro Ala Val Pro Ser Ser Ala Pro

260

265

270

Ala Ser Lys Pro Phe Val Thr Pro Ile Ser Ser Ala Ser Thr Ser Ser

275

280

285

Arg Pro Ile Ser Asn Pro Phe Gly Ala Ala Lys Pro Val Asp Thr Leu

290

295

300

Ser Lys Gln Gln Glu Ile Glu Lys Lys Leu Ile Asn Leu Asn Lys Thr

305

310

315

320

Thr Val Gln Thr Leu Gly Asp Val Glu Thr Pro Glu Glu Val Gln Ala

325

330

335

Thr Ile Lys Lys Phe His Glu Asn Gly Ser Pro Lys Leu Arg Arg Ala
340 345 350

Ser Val Gly Thr Pro Arg Arg Leu Ser Ser Glu Lys Arg Pro Ser Val
355 360 365

Ser Ile Leu Arg Arg Asp Leu Pro Glu Arg Gln Gln Pro Pro Pro Pro
370 375 380

Pro Gln Gln Gln Gln Gln Gln Gln Pro Pro Gln Gln Gln Asp Gln Asn
385 390 395 400

Thr Lys Gln Thr Ala Leu His Gln Pro Asp Gln Leu Gln Asn His Ser
405 410 415

Ser Asn Ile Ser Ser Thr Gln Pro Ser Gly Glu Ser Pro Leu Ala Glu
420 425 430

Thr Gln Ser Leu Ser Thr Asn Pro Tyr Thr Ser Asn Gly Thr Gly Lys
435 440 445

Ser Leu Ala Gln Leu Leu Ser Glu Gln Ser Asp Ile Met Ser Ala Pro
450 455 460

Pro Ile Thr Gly Lys Lys Thr Pro Arg Ser Asn Ser Asn Thr Lys Lys
465 470 475 480

Pro Val Val Ala Ala Lys Pro Val Ile Leu Lys Lys Lys Thr Pro Thr

485

490

495

Ser Pro Pro Val Gln Arg Ile Asp Leu Thr Ile Lys Glu Ser Glu Tyr

500

505

510

Leu Lys Lys Gln Asp Glu Thr Asp Asp Leu Ile Asp Ala Asn Val Glu

515

520

525

Thr Lys Leu Glu Lys Leu Asp Leu Asn Ser Glu Thr Leu Ser Glu Asn

530

535

540

Gly Thr Lys Glu Ser Thr Lys Thr Arg Ile Asp Asn Pro Lys Arg Glu

545

550

555

560

Asn Asp Gln His Asp Asp Arg Pro Asn Phe Lys Asn Leu Asp Gln Leu

565

570

575

Val Gln Lys Arg Asn Asp Ser Arg Ala Ser Ser Ser Ser Ser Asn Ser

580

585

590

Arg Arg Phe Glu Phe Ile Arg Gly Leu Lys Glu Glu Asn Glu Arg Val

595

600

605

Pro Ser Pro Ser Ser Ser Ser Ser Ser Ser Ser Ala Thr Lys Thr Ser

610

615

620

Gln Asn Asn Phe Glu Lys Ser Ser Glu Ser Ala Ile Ser Arg Thr Asp

625

630

635

640

Asp Gln Gln Asp Leu Ser Ser Thr Asn Thr Gly Ser Glu Gly Arg Met

645

650

655

Trp Glu Arg Gly Arg Gly Arg Gly Arg Gly Gly Phe Ser Phe Arg Ser

660

665

670

Arg Gly Gly Phe Arg Gly Arg Gly Ala Gly Phe Arg Gly Ser Gly Arg

675

680

685

Gly Gly Pro Arg Arg Arg Gly Gly Asn Gly Ala Ser Gly Ala Gly Gly

690

695

700

Thr Ala Ser Gly Ser Thr Gly Ser Ala Asn Tyr Asn Leu His Tyr Val

705

710

715

720

Arg Ser Lys Pro Thr Pro Val Glu Thr Asn Glu

725

730

<210> 61

<211> 1483

<212> DNA

<213> Candida albicans

<400> 61

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<210> 62

<211> 468

<212> PRT

<213> *Candida albicans*

<400> 62

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 20 25 30

Leu Arg Ser Val Leu Thr Thr Leu Ile Glu Leu Leu Gly Ile Asp Asn
 35 40 45

Pro Pro Ser Tyr Leu His Leu Thr Thr Asn Asn Asp Ser Ile Gly Asp
 50 55 60

Leu Lys Ile Lys Tyr Tyr Gly Asn Ala Leu Ser Lys Ser Ile Asn Gly
 65 70 75 80

His Ser Met Leu Gln Tyr Leu Glu Ser Lys His Val Ser Ile Leu Gln
 85 90 95

Ala Val Val Glu Ile Ile Asn Thr Arg Ser Tyr Arg Ile Lys Glu Ser
 100 105 110

Tyr Ser Ala Val Phe Lys Asp Val Ser His Leu Phe Glu Lys Leu Leu
 115 120 125

Lys Glu Arg Tyr Glu Ala Glu Ser Asn Leu Glu Asp Tyr Ile Leu Gln
 130 135 140

Cys Leu Met Tyr Glu Thr Gln Phe Tyr Gln Gly Ile Val Asp Asn Val

145 150 155 160

Leu Thr Ala Asp Asp Thr Glu Lys Leu Ala Ser Phe Leu Gly Thr Arg

165 170 175

Leu Ser Glu Glu Asp Ser Met Phe Ser Tyr Arg Asp Ile Asp Tyr Pro

180 185 190

Leu Glu Leu Asn Ile Asn Asn Glu Ser Leu Glu Lys Ile Tyr Lys Ile

195 200 205

Phe Leu Gly Val Ile Gly Thr Lys Arg Phe Asp Ile Lys Glu Val Ala

210 215 220

Ser Ala Val Val Gly Val Tyr Lys Arg His Gln Arg Ile Asp His Phe

225 230 235 240

Glu Lys Leu Asp Ser Asp Glu Ile Leu Gly Lys Phe Phe Arg Asn Ile

245 250 255

Leu Pro Gln Ser Phe Gln Ser Val Thr Asn Lys Val Phe Arg Glu Phe

260 265 270

His Lys Glu Val Asp Asp Pro Pro Ser Asp Val Leu Asp Gln Leu Asp

275 280 285

Asn Ile Val Asp Asp Phe Ile Ala Val Gly Ile Glu Gly Val Asp Leu

290 295 300

Gly Phe Pro Ala Leu Phe Arg His Tyr Ile Lys Phe Met Asn Glu Ile
305 310 315 320

Phe Pro Thr Val Val Glu Asp Ala Asp Arg Asp Phe Val Ala Arg Ile
325 330 335

Asn Ser Leu Ile Ala Gln Val Leu Glu Phe Lys Asp Asp Glu Lys Ser
340 345 350

Cys Asp Ile Asn Gln Val Val Ser Glu Phe Val Ser Leu Gln Ser Leu
355 360 365

Leu Leu Lys Asn Asn Tyr Leu Ser Pro Ser Thr Leu Leu Met Arg Ala
370 375 380

Ser Thr His Asp Tyr Tyr Lys Asn Leu Gln Ile Val Lys Ile Thr Phe
385 390 395 400

Asp Gly Trp Asn Glu Asn Ser Lys Arg Ile Leu Lys Leu Glu Asn Ser
405 410 415

Gly Phe Leu Gln Ser Lys Thr Leu Pro Lys Tyr Leu Lys Leu Trp Tyr
420 425 430

Ser Lys Ser Met Lys Leu Asn Glu Leu Cys Asn Arg Val Asp Glu Phe
435 440 445

Tyr Asn Gly Glu Leu Cys Arg Lys Val Trp His Cys Trp Arg Ala Gln

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460

Gln Arg Cys Leu

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<210> 63

<211> 715

<212> DNA

<213> Candida albicans

<400> 63

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aataaatttt gaagaacgtg cagccattgt gaaacaacgt aaagaggaaa aacgtaaatt 660
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<210> 64

<211> 106

<212> PRT

<213> Candida albicans

<400> 64

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20 25 30

Arg Ala Arg Leu Arg Lys Asn Tyr Phe Lys Leu Leu Glu Lys Glu Gly

35 40 45

Leu Gln Glu Glu Arg Lys Pro Glu Asp Glu Asn Asp Ile Arg Pro Thr

50 55 60

Lys Lys Lys Gly Ile Asn Phe Glu Glu Arg Ala Ala Ile Val Lys Gln

65 70 75 80

Arg Lys Glu Glu Lys Arg Lys Phe Lys Leu Ala Ser Val Gln Ala Lys

85 90 95

Leu Glu Lys Ile Glu Ser Asn Ser Lys Glu

100 105

<210> 65

<211> 147

<212> DNA

<213> Candida albicans

<400> 65

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 accaatggaa tcatttccca acgtatg 147

<210> 66

<211> 49

<212> PRT

<213> Candida albicans

<400> 66

Met Lys Ile Ser Pro Glu Thr Val Asn Lys Leu Gln Ser Asp Ala Ser

1 5 10 15

Cys Ile Arg Asn Ile Cys Ile Leu Ala His Val Asp His Gly Lys Thr

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Ser Leu Ser Asp Ser Leu Leu Ala Thr Asn Gly Ile Ile Ser Gln Arg

35 40 45

Met

<210> 67

<211> 3393

<212> DNA

<213> Candida albicans

<400> 67

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<210> 68

<211> 497

<212> PRT

<213> Candida albicans

<400> 68

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35 40 45

Val Val Glu Gly Val Cys Ser Gln Thr Val Asn Val Leu Arg Gln Cys

50 55 60

Trp Ile Asp Lys Leu Lys Pro Leu Leu Val Ile Asn Lys Ile Asp Arg

65 70 75 80

Leu Ile Thr Glu Trp Lys Leu Ser Pro Leu Glu Ala Tyr Gln His Ile

85 90 95

Ser Arg Ile Ile Glu Gln Val Asn Ser Val Ile Gly Ser Phe Phe Ala

100

105

110

Gly Asp Arg Leu Glu Asp Asp Leu Asn Trp Arg Glu Ala Gly Ser Val

115

120

125

Gly Glu Phe Ile Glu Lys Ser Asp Glu Asp Leu Tyr Phe Thr Pro Glu

130

135

140

Lys Asn Asn Val Ile Phe Ala Ser Ala Ile Asp Gly Trp Ala Phe Ser

145

150

155

160

Val Asn Thr Phe Ala Lys Ile Tyr Ser Lys Lys Leu Gly Phe Ser Gln

165

170

175

Gln Ala Leu Ser Lys Thr Leu Trp Gly Asp Phe Tyr Leu Asp Met Lys

180

185

190

Asn Lys Lys Ile Ile Pro Gly Lys Lys Leu Lys Asn Asn Ser Asn Ser

195

200

205

Leu Lys Pro Leu Phe Val Ser Leu Ile Leu Asp Gln Val Trp Ala Val

210

215

220

Tyr Glu Asn Cys Val Ile Glu Arg Asn Gln Asp Lys Leu Glu Lys Ile

225

230

235

240

Ile Glu Lys Leu Gly Ala Lys Ile Thr Pro Arg Asp Leu Arg Ser Lys

245

250

255

Asp Tyr Lys Asn Leu Leu Asn Leu Ile Met Ser Gln Trp Ile Pro Leu
260 265 270

Ser His Ala Ile Leu Gly Ser Val Ile Glu Tyr Leu Pro Ser Pro Ile
275 280 285

Val Ala Gln Arg Glu Arg Ile Asp Lys Ile Leu Asp Glu Thr Ile Tyr
290 295 300

Ser Ala Val Asp Ser Glu Ser Asp Lys Ser Lys Leu Val Asp Pro Ser
305 310 315 320

Phe Val Lys Ala Met Gln Glu Cys Asp Ser Ser His Pro Glu Thr His
325 330 335

Thr Ile Ala Tyr Val Ser Lys Leu Leu Ser Ile Pro Asn Glu Asp Leu
340 345 350

Pro Lys Ala Ser Asn Ala Ala Thr Gly Gly Leu Thr Ala Asp Glu Ile
355 360 365

Gln Glu Arg Gly Arg Ile Ala Arg Glu Leu Ala Lys Lys Ala Ser Glu
370 375 380

Ala Ala Ala Leu Ala Gln Glu Gly Ser Lys Asn Glu Asp Glu Phe Ala
385 390 395 400

Ile Lys Pro Lys Lys Asp Pro Phe Glu Trp Glu Phe Glu Glu Asp Asp

405

410

415

Phe Glu Asn Glu Glu Asp Glu Ser Asp Ala Asn Ala Val Glu Glu Ser

420

425

430

Thr Glu Thr Ile Val Gly Phe Thr Arg Ile Tyr Ser Gly Ser Leu Ser

435

440

445

Arg Gly Gln Lys Leu Thr Val Ile Gly Pro Lys Tyr Asp Pro Ser Leu

450

455

460

Pro Arg Asp His Gln Thr Asn Phe Glu Gln Ile Thr Asn Glu Val Glu

465

470

475

480

Ile Lys Asp Leu Phe Leu Ile Met Gly Arg Glu Leu Val Arg Met Glu

485

490

495

Lys

<210> 69

<211> 467

<212> PRT

<213> Candida albicans

<400> 69

Pro Ala Gly Asn Ile Val Gly Val Val Gly Leu Asp Asn Ala Val Leu

1

5

10

15

Lys Asn Ala Thr Ile Cys Ser Pro Leu Pro Glu Asp Lys Pro Tyr Ile

20

25

30

Asn Leu Ala Ser Thr Ser Thr Leu Ile His Asn Lys Pro Ile Met Lys

35

40

45

Ile Ala Val Glu Pro Thr Asn Pro Ile Lys Leu Ala Lys Leu Glu Arg

50

55

60

Gly Leu Asp Leu Leu Ala Lys Ala Asp Pro Val Leu Glu Trp Tyr Val

65

70

75

80

Asp Asp Glu Ser Gly Glu Leu Ile Val Cys Val Ala Gly Glu Leu His

85

90

95

Leu Glu Arg Cys Leu Lys Asp Leu Glu Glu Arg Phe Ala Lys Gly Cys

100

105

110

Glu Val Thr Val Lys Glu Pro Val Ile Pro Phe Arg Glu Gly Leu Ala

115

120

125

Asp Asp Lys Ile Ser Thr Asn Thr Asn Asn Asn Asn Asp Asp Asn Glu

130

135

140

Asp His Glu Leu Asp Glu Asn Glu Asp Glu Leu Ala Asp Leu Glu Phe

145

150

155

160

Asp Ile Ser Pro Leu Pro Leu Glu Val Thr Gln Phe Leu Ile Glu Asn
165 170 175

Glu Thr Ile Ile Ala Glu Ile Val Asn Asn Lys Gln Asp Thr His Glu
180 185 190

Ile Arg Asn Asp Phe Ile Glu Lys Phe Ala Thr Ile Ile Asp Asn Ser
195 200 205

Asn Leu Ala Thr Gln Phe Pro Asp Thr Lys Ser Phe Ile Asn Asn Ile
210 215 220

Ile Cys Phe Gly Pro Lys Arg Val Gly Pro Asn Ile Phe Ile Glu Asp
225 230 235 240

Tyr Gly Leu Asn Lys Phe Arg His Leu Leu Gly Glu Ser Ala Thr Glu
245 250 255

Ser Arg Phe Val Tyr Glu Asn Asn Val Phe Asn Gly Val Gln Leu Val
260 265 270

Phe Asn Gly Gly Pro Leu Ala Ser Glu Pro Met Gln Gly Ile Ile Val
275 280 285

Arg Leu Lys Lys Ala Glu Lys Arg Glu Val Asp Glu Asp Lys Ile Val
290 295 300

Asn Pro Gly Lys Ile Ile Thr Gln Thr Arg Asp Leu Ile Tyr Lys Arg
305 310 315 320

Phe Leu Gln Lys Ser Pro Arg Leu Tyr Leu Ala Met Tyr Thr Cys Glu

325

330

335

Ile Gln Ala Ala Ala Glu Val Leu Gly Lys Val Tyr Ala Val Val Gln

340

345

350

Arg Arg Glu Gly Ser Ile Ile Ser Glu Glu Met Lys Glu Gly Thr Pro

355

360

365

Phe Phe Thr Ile Val Ala Arg Ile Pro Val Ile Glu Ala Phe Gly Phe

370

375

380

Ser Glu Asp Ile Arg Lys Lys Thr Ser Gly Ala Ala Ser Pro Gln Leu

385

390

395

400

Val Phe Asp Gly Tyr Asp Met Leu Asp Ile Asp Pro Phe Trp Val Pro

405

410

415

His Thr Glu Glu Glu Leu Glu Glu Leu Gly Glu Phe Ala Glu Arg Glu

420

425

430

Asn Val Ala Arg Arg Tyr Met Asn Asn Ile Arg Arg Arg Lys Gly Leu

435

440

445

Phe Val Asp Glu Lys Val Val Lys Asn Ala Glu Lys Gln Arg Thr Leu

450

455

460

Lys Arg Asp

465

<210> 70

<211> 1340

<212> DNA

<213> Candida albicans

<400> 70

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<210> 71

<211> 428

<212> PRT

<213> Candida albicans

<400> 71

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1

5

10

15

Lys Leu Val Asp Leu Leu Cys Asp Asp Ile Asp Val Cys Ala Arg Cys

20

25

30

Gln Gly Gly Asn Asn Ala Gly His Thr Ile Val Val Gly Lys Val Lys

35

40

45

Tyr Asp Phe His Met Leu Pro Ser Gly Leu Val Asn Pro Lys Cys Gln

50

55

60

Asn Leu Val Gly Ser Gly Val Val Ile His Val Pro Ser Phe Phe Ala

65

70

75

80

Glu Leu Glu Asn Leu Glu Ala Lys Gly Leu Asp Cys Arg Asp Arg Leu

85

90

95

Phe Val Ser Ser Arg Ala His Leu Val Phe Asp Phe His Gln Arg Thr

100

105

110

Asp Lys Leu Lys Glu Ala Glu Leu Ser Thr Asn Lys Lys Ser Ile Gly

115

120

125

Thr Thr Gly Lys Gly Ile Gly Pro Thr Tyr Ser Thr Lys Ala Ser Arg

130

135

140

Ser Gly Ile Arg Val His His Leu Val Asn Pro Asp Pro Glu Ala Trp

145

150

155

160

Glu Glu Phe Lys Thr Arg Tyr Leu Arg Leu Val Glu Ser Arg Gln Lys

165

170

175

Arg Tyr Gly Glu Phe Glu Tyr Asp Pro Lys Glu Glu Leu Ala Arg Phe

180

185

190

Glu Lys Tyr Arg Glu Thr Leu Arg Pro Phe Val Val Asp Ser Val Asn

195

200

205

Phe Met His Glu Ala Ile Ala Ala Asn Lys Lys Ile Leu Val Glu Gly

210

215

220

Ala Asn Ala Leu Met Leu Asp Ile Asp Phe Gly Thr Tyr Pro Tyr Val

225

230

235

240

Thr Ser Ser Ser Thr Gly Ile Gly Gly Val Leu Thr Gly Leu Gly Ile

245

250

255

Pro Pro Arg Thr Ile Arg Asn Val Tyr Gly Val Val Lys Ala Tyr Thr

260

265

270

Thr Arg Val Gly Glu Gly Pro Phe Pro Thr Glu Gln Leu Asn Lys Val

275

280

285

Gly Glu Thr Leu Gln Asp Val Gly Ala Glu Tyr Gly Val Thr Thr Gly

290

295

300

Arg Lys Arg Arg Cys Gly Trp Leu Asp Leu Val Val Leu Lys Tyr Ser

305

310

315

320

Asn Ser Ile Asn Gly Tyr Thr Ser Leu Asn Ile Thr Lys Leu Asp Val

325

330

335

Leu Asp Lys Phe Lys Glu Ile Glu Val Gly Val Ala Tyr Lys Leu Asn

340

345

350

Gly Lys Glu Leu Pro Ser Phe Pro Glu Asp Leu Ile Asp Leu Ala Lys

355

360

365

Val Glu Val Val Tyr Lys Lys Phe Pro Gly Trp Glu Gln Asp Ile Thr

370

375

380

Gly Ile Lys Lys Tyr Glu Asp Leu Pro Glu Asn Ala Lys Asn Tyr Leu

385

390

395

400

Lys Phe Ile Glu Asp Tyr Leu Gln Val Pro Ile Gln Trp Val Gly Thr

405

410

415

Gly Pro Ala Arg Asp Ser Met Leu Glu Lys Lys Ile

420

425

<210> 72

<211> 1947

<212> DNA

<213> Candida albicans

<400> 72

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<210> 73

<211> 584

<212> PRT

<213> Candida albicans

<400> 73

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10

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Ile Pro Gly Thr Thr Asn Ile Leu Thr Gly Lys Thr Thr Ile Asp Glu
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Ser Ser Ser Ile Thr Thr Gln Lys Ser Leu Lys Arg Asp Pro Lys Thr
 35 40 45

Gly Leu Val Leu Met Pro Gln Pro Thr Ser Ser Pro Asn Asp Pro Leu
 50 55 60

Asn Trp Ser Pro Phe Arg Lys Phe Ala Gln Leu Thr Leu Leu Ser Phe
 65 70 75 80

Ile Thr Ala Leu Thr Ala Ala Thr Ser Asn Asp Ala Gly Ala Thr Gln
 85 90 95

Asp Ser Leu Asn Lys Ile Tyr Gly Ile Ser Tyr Asp Ser Met Asn Thr
 100 105 110

Gly Ala Gly Val Leu Phe Ile Phe Ile Gly Trp Ser Cys Met Phe Phe
 115 120 125

Ala Pro Ala Ser Ser Leu Tyr Gly Arg Arg Ile Thr Tyr Ile Ile Cys
 130 135 140

Leu Leu Ala Gly Thr Leu Gly Cys Val Trp Phe Ala Leu Ser Lys Arg
 145 150 155 160

Thr Ala Asp Thr Ile Trp Ser Gln Ala Phe Val Gly Met Ser Glu Ala
 165 170 175

Cys Ala Glu Ala Gln Val Gln Gln Ser Leu Thr Asp Leu Phe Leu Ala

180

185

190

His Glu Leu Gly Thr Ala Leu Thr Ile Tyr Ile Ser Ala Thr Ser Ile

195

200

205

Gly Thr Leu Leu Gly Pro Leu Ile Ala Gln Asp Ile Ala Gln Ala Gln

210

215

220

Thr Phe Arg Trp Val Gly Trp Trp Gly Ala Ile Ile Cys Gly Ala Thr

225

230

235

240

Leu Ile Val Ile Ile Phe Gly Cys Glu Glu Thr Val Phe Asp Arg Gln

245

250

255

Leu Tyr Thr Lys Val Leu Glu Ser Glu Asn Val Thr Gln Ile Pro Asp

260

265

270

Pro Ser Glu Glu Lys Lys Gln Asp Asn Pro Leu Thr Asn Asn Ile Ile

275

280

285

Pro His Glu Lys Lys Asn Ser Met Glu Gln Glu Leu Ser His Glu Tyr

290

295

300

Ile Thr Ala Asn Asn Asn Glu His Asp Val Val Pro Ile Asp Pro Glu

305

310

315

320

Thr Leu Asn Glu Lys Lys Lys Ser Tyr Trp Gln Arg Ile Ala Ile Ile
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340 345 350

Arg Phe Ile Ile Tyr Phe Lys Ile Phe Thr Leu Pro Ala Val Trp Phe
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Ser Gly Leu Leu Trp Gly Leu Gln Asp Thr Tyr Met Thr Phe Phe Leu
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Thr Thr Gln Asp Thr Tyr Phe Tyr Asn Pro Pro Trp Asn Lys Ser Asn
385 390 395 400

Ala Gly Val Ala Ile Met Asn Val Ala Thr Leu Ile Gly Ala Val Ile
405 410 415

Gly Cys Ile Val Ser Gly Leu Phe Ser Asp Tyr His Val Ile Trp Leu
420 425 430

Ala Lys Arg Asn Asn Gly Ile Met Glu Ala Glu Tyr Arg Leu Tyr Leu
435 440 445

Leu Val Ile Thr Leu Ile Ile Ser Pro Val Gly Leu Ile Met Phe Gly
450 455 460

Val Gly Ala Ala Arg Glu Trp Pro Trp Gln Val Ile Tyr Val Gly Leu
465 470 475 480

Gly Phe Ile Gly Phe Gly Trp Gly Ser Ile Gly Asp Thr Ser Met Ser

485

490

495

Tyr Leu Met Asp Ala Tyr Pro Asp Ile Val Ile Gln Gly Met Val Gly

500

505

510

Val Ser Ile Ile Asn Asn Thr Leu Ala Cys Ile Phe Thr Phe Ala Cys

515

520

525

Ser Tyr Trp Leu Asp Gly Ser Gly Thr Gln Asn Thr Tyr Ile Ala Leu

530

535

540

Ser Ile Ile Asp Phe Ala Thr Ile Ala Leu Val Phe Pro Phe Leu Tyr

545

550

555

560

Tyr Gly Lys Thr Phe Arg Arg Lys Thr Lys Arg Leu Tyr Val Ser Met

565

570

575

Val Glu Leu Thr Gln Gly Met Gly

580

<210> 74

<211> 1018

<212> DNA

<213> Candida albicans

<400> 74

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<210> 75

<211> 331

<212> PRT

<213> *Candida albicans*

<400> 75

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20

25

30

Ala Pro Thr Ala Thr Gly Glu Leu Ser Leu Leu Leu Asn Ala Leu Gln

35

40

45

Phe Ala Phe Lys Phe Ile Ala His Asn Ile Arg Arg Ala Glu Leu Val

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55

60

Asn Leu Ile Gly Val Ser Gly Ser Ala Asn Ser Thr Gly Asp Val Gln

65

70

75

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Lys Lys Leu Asp Val Ile Gly Asp Glu Ile Phe Ile Asn Ala Met Arg

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90

95

Ser Ser Asn Asn Val Lys Val Leu Val Ser Glu Glu Gln Glu Asp Leu

100

105

110

Ile Val Phe Pro Gly Gly Gly Thr Tyr Ala Val Cys Thr Asp Pro Ile

115

120

125

Asp Gly Ser Ser Asn Ile Asp Ala Gly Val Ser Val Gly Thr Ile Phe

130

135

140

Gly Val Tyr Lys Leu Gln Glu Gly Ser Thr Gly Gly Ile Ser Asp Val

145

150

155

160

Leu Arg Pro Gly Lys Glu Met Val Ala Ala Gly Tyr Thr Met Tyr Gly

165

170

175

Ala Ser Ala His Leu Ala Leu Thr Thr Gly His Gly Val Asn Leu Phe

180

185

190

Thr Leu Asp Thr Gln Leu Gly Glu Phe Ile Leu Thr His Pro Asn Leu

195

200

205

Lys Leu Pro Asp Thr Lys Asn Ile Tyr Ser Leu Asn Glu Gly Tyr Ser

210

215

220

Asn Lys Phe Pro Glu Tyr Val Gln Asp Tyr Ser Lys Asp Ile Lys Lys

225

230

235

240

Glu Gly Tyr Ser Leu Arg Tyr Ile Gly Ser Met Val Ala Asp Val His

245

250

255

Arg Thr Leu Leu Tyr Gly Gly Ile Phe Ala Tyr Pro Thr Leu Lys Leu

260

265

270

Arg Val Leu Tyr Glu Cys Phe Pro Met Ala Leu Leu Met Glu Gln Ala

275

280

285

Gly Gly Ser Ala Val Thr Ile Lys Gly Glu Arg Ile Leu Asp Ile Leu

290

295

300

Pro Lys Gly Ile His Asp Lys Ser Ser Ile Val Leu Gly Ser Lys Gly

305

310

315

320

Glu Val Glu Lys Tyr Leu Lys His Val Pro Lys

325

330

<210> 76

<211> 1686

<212> DNA

<213> Candida albicans

<400> 76

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<210> 77

<211> 475

<212> PRT

<213> Candida albicans

<400> 77

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Pro Arg Ser Ser Ser Ser Ser Ser Ser Gln Lys Lys Lys Ser Ser Lys

35 40 45

Lys Gln Arg His Asn Asp Glu Asp Asp Glu Glu Asn Gly Gly Gly Glu

50 55 60

Gly Phe Leu Asp Ala Ser Ser Ser Arg Lys Ile Leu Gln Leu Ala Lys
65 70 75 80

Glu Gln Gln Asp Glu Leu Glu Gln Glu Asp Glu Ile Gln Asn Lys Pro
85 90 95

Ser Phe Ala Gln Ser Phe Lys Asn Gln Gln Ile Asp Ser Glu Glu Glu
100 105 110

Glu Glu Glu Asp Glu Tyr Ser Asp Phe Glu Glu Glu Glu Glu Val Glu
115 120 125

Glu Ile Val Tyr Asp Glu Glu Asp Ala Glu Val Asp Pro Lys Asp Ala
130 135 140

Glu Leu Phe Asn Lys Tyr Phe Gln Ser Asn Gly Glu Ala Asn Asn Asn
145 150 155 160

Asp Asp Asp Asn Ser Phe Gln Pro Thr Ile Asn Leu Ala Asp Lys Ile
165 170 175

Leu Ala Lys Ile Gln Glu Lys Glu Ser Gln Gln Gln Gln Gln Gln
180 185 190

Ser Ser Pro Asp Asn Ser Asn Glu Asp Ala Val Leu Leu Pro Pro Lys
195 200 205

Val Ile Leu Ala Tyr Glu Lys Ile Gly Gln Ile Leu Ser Thr Tyr Thr

210

215

220

His Gly Lys Leu Pro Lys Leu Phe Lys Ile Leu Pro Ser Leu Lys Asn

225

230

235

240

Trp Gln Asp Val Leu Tyr Val Thr Asn Pro Asn Ser Trp Thr Pro His

245

250

255

Ala Thr Tyr Glu Ala Thr Lys Leu Phe Val Ser Asn Leu Ser Ser Asn

260

265

270

Glu Ala Thr Val Phe Ile Glu Thr Ile Leu Leu Pro Arg Phe Arg Asp

275

280

285

Ser Ile Glu Asn Ser Asp Asp His Ser Leu Asn Tyr His Ile Tyr Arg

290

295

300

Ala Leu Lys Lys Ser Leu Tyr Lys Pro Gly Ala Phe Phe Lys Gly Phe

305

310

315

320

Leu Leu Pro Leu Val Asp Gly Tyr Cys Ser Val Arg Glu Ala Thr Ile

325

330

335

Ala Ala Ser Val Leu Thr Lys Val Ser Val Pro Val Leu His Ser Ser

340

345

350

Val Ala Leu Thr Gln Leu Leu Thr Arg Asp Phe Asn Pro Ala Thr Thr

355

360

365

Val Phe Ile Arg Val Leu Ile Glu Lys Lys Tyr Ala Leu Pro Tyr Gln
370 375 380

Thr Leu Asp Glu Leu Val Phe Tyr Phe Met Arg Phe Arg Asn Ala Thr
385 390 395 400

Ile Asn Gln Asp Glu Asn Met Glu Asn Met Asp Ile Asp Gln Glu Lys
405 410 415

Thr Thr Lys Val Asn Asn Gly Pro Gln Leu Pro Val Val Trp His Lys
420 425 430

Ala Phe Leu Ser Phe Ala Thr Arg Tyr Lys Asn Asp Leu Thr Asp Asp
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Gln Lys Asp Phe Leu Leu Glu Thr Val Arg Gln Arg Phe His Pro Leu
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Ile Gly Pro Glu Ile Arg Arg Glu Leu Leu Ser
465 470 475

<210> 78

<211> 1519

<212> DNA

<213> Candida albicans

<400> 78

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<210> 79

<211> 440

<212> PRT

<213> Candida albicans

<400> 79

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10

15

Met Arg Gln Lys Phe Asn Met Gly Glu Ile Thr Gln Asp Ala Val Tyr

20

25

30

Leu Asp Ala Glu Arg Arg Phe Lys Glu Ile Glu Thr Glu Thr Lys Lys

35

40

45

Leu Ser Glu Glu Ser Lys Lys Tyr Phe Asn Ala Val Asn Gly Met Leu

50

55

60

Asp Glu Gln Ile Asp Phe Ala Lys Ala Val Ala Glu Ile Tyr Lys Pro

65

70

75

80

Ile Ser Gly Arg Leu Ser Asp Pro Ser Ala Thr Val Pro Glu Asp Asn

85

90

95

Pro Gln Gly Ile Glu Ala Ser Glu Ser Tyr Gln Ala Val Val Lys Asp

100

105

110

Leu Lys Asp Thr Leu Lys Pro Asp Leu Glu Leu Ile Glu Lys Arg Ile

115

120

125

Val Glu Pro Ala Gln Glu Leu Leu Lys Ile Ile Gln Ala Ile Arg Lys
130 135 140

Met Ser Val Lys Arg Asp His Lys Gln Leu Asp Leu Asp Arg His Lys
145 150 155 160

Arg Asn Phe Ser Lys Tyr Glu Ser Lys Lys Glu Arg Thr Val Lys Asp
165 170 175

Glu Glu Lys Met Phe Ser Ala Gln Ala Glu Val Glu Ile Ala Gln Gln
180 185 190

Glu Tyr Asp Tyr Tyr Asn Asp Leu Leu Lys Asn Glu Leu Pro Val Leu
195 200 205

Phe Gln Met Gln Ser Asp Phe Ile Lys Pro Leu Phe Val Ser Phe Tyr
210 215 220

Tyr Met Gln Leu Asn Ile Phe Tyr Thr Leu Tyr Thr Arg Met Glu Glu
225 230 235 240

Leu Lys Ile Pro Tyr Phe Asp Leu Ser Thr Asp Ile Val Glu Ala Tyr
245 250 255

Thr Ala Lys Lys Gly Asn Ile Glu Glu Gln Thr Asp Ala Ile Gly Ile
260 265 270

Thr His Phe Lys Val Gly His Ala Lys Ser Lys Leu Glu Ala Thr Lys
275 280 285

Arg Arg His Ala Ala Met Asn Ser Pro Pro Pro Thr Gly Ala Ser Ser
290 295 300

Ile Ala Ser Thr Gly Thr Gly Gly Glu Leu Pro Ala Tyr Ser Pro Gly
305 310 315 320

Gly Tyr Asn Gln Pro Tyr Gly Asp Ser Lys Tyr Gln Pro Pro Ser Ser
325 330 335

Pro Ala Thr Tyr Gln Ser Pro Val Val Ala Ala Thr Ala Gln Ser Pro
340 345 350

Ala Thr Tyr Gln Ser Pro Val Ala Thr Gly Gln Pro Pro Ser Tyr Leu
355 360 365

Pro Gln Thr Pro Ala Ser Ala Pro Pro Pro Gln Val Gly Ser Gly Leu
370 375 380

Pro Thr Cys Thr Ala Leu Tyr Asp Tyr Thr Ala Gln Ala Gln Gly Asp
385 390 395 400

Leu Thr Phe Pro Ala Gly Ala Val Ile Glu Ile Ile Gln Arg Thr Glu
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Asp Ala Asn Gly Trp Trp Thr Gly Lys Tyr Asn Gly Gln Thr Gly Val
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Phe Pro Gly Asn Tyr Val Gln Leu

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<210> 80

<211> 861

<212> DNA

<213> *Candida albicans*

<400> 80

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861

<210> 81

<211> 1641

<212> DNA

<213> *Candida albicans*

<400> 81

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<210> 82

<211> 546

<212> PRT

<213> Candida albicans

<400> 82

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35 40 45

Met Cys Phe Leu Ile Ala Phe Gly Gly Phe Val Phe Gly Phe Asp Thr

50 55 60

Gly Thr Ile Ser Gly Phe Ile Asn Met Ser Asp Phe Leu Glu Arg Phe

65 70 75 80

Gly Gly Thr Lys Ala Asp Gly Thr Leu Tyr Phe Ser Asn Val Arg Thr

85 90 95

Gly Val Met Ile Gly Leu Phe Asn Ala Gly Gly Ala Ile Gly Ala Leu

100

105

110

Phe Leu Ser Lys Val Gly Asp Met Tyr Gly Arg Arg Val Gly Ile Met

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Thr Ala Met Ile Val Tyr Ile Val Gly Ile Ile Val Gln Ile Ala Ser

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Gln His Ala Trp Tyr Gln Val Met Ile Gly Arg Ile Ile Thr Gly Leu

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Ala Val Gly Met Leu Ser Val Leu Cys Pro Leu Phe Ile Ser Glu Val

165

170

175

Ser Pro Lys His Leu Arg Gly Thr Leu Val Cys Cys Phe Gln Leu Met

180

185

190

Ile Thr Leu Gly Ile Phe Leu Gly Tyr Cys Thr Thr Tyr Gly Thr Lys

195

200

205

Ser Tyr Ser Asp Ser Arg Gln Trp Arg Ile Pro Leu Gly Leu Cys Phe

210

215

220

Ala Trp Ala Leu Cys Leu Val Ala Gly Met Val Arg Met Pro Glu Ser

225

230

235

240

Pro Arg Tyr Leu Val Gly Lys Asp Arg Ile Glu Asp Ala Lys Met Ser

245

250

255

Leu Ala Lys Thr Asn Lys Val Ser Pro Glu Asp Pro Ala Leu Tyr Arg

260

265

270

Glu Leu Gln Leu Ile Gln Ala Gly Val Glu Arg Glu Arg Leu Ala Gly

275

280

285

Lys Ala Ser Trp Gly Thr Leu Phe Asn Gly Lys Pro Arg Ile Phe Glu

290

295

300

Arg Val Ile Val Gly Val Met Leu Gln Ala Leu Gln Gln Leu Thr Gly

305

310

315

320

Asp Asn Tyr Phe Phe Tyr Tyr Ser Thr Thr Ile Phe Lys Ser Val Gly

325

330

335

Met Asn Asp Ser Phe Glu Thr Ser Ile Ile Ile Gly Val Ile Asn Phe

340

345

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Ala Ser Thr Phe Val Gly Ile Tyr Ala Ile Glu Arg Met Gly Arg Arg

355

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365

Leu Cys Leu Leu Thr Gly Ser Val Ala Met Ser Ile Cys Phe Leu Ile

370

375

380

Tyr Ser Leu Val Gly Thr Gln His Leu Tyr Ile Asp Lys Pro Gly Gly

385

390

395

400

Ala Ser Arg Lys Pro Asp Gly Asp Ala Met Ile Phe Met Thr Pro Leu

405

410

415

Tyr Val Ile Phe Ser Pro Ser Thr Trp Ala Gly Gly Val Tyr Ser Ile

420

425

430

Ile Ser Glu Leu Tyr Pro Leu Lys Val Arg Ser Lys Ala Met Gly Leu

435

440

445

Ala Asn Ala Ser Asn Trp Thr Trp Gly Phe Leu Ile Ser Phe Phe Thr

450

455

460

Ser Phe Ile Thr Asp Ala Ile His Phe Tyr Tyr Gly Phe Val Phe Met

465

470

475

480

Gly Cys Leu Val Phe Ser Ile Phe Phe Val Tyr Phe Met Val Tyr Glu

485

490

495

Thr Lys Gly Leu Thr Leu Glu Glu Ile Asp Glu Leu Tyr Ser Thr Lys

500

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510

Val Leu Pro Trp Lys Ser Ala Gly Trp Val Pro Pro Ser Glu Glu Glu

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His Val

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<210> 83

<211> 1014

<212> DNA

<213> *Candida albicans*

<400> 83

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<210> 84

<211> 337

<212> PRT

<213> Candida albicans

<400> 84

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35 40 45

Glu Ala Pro Glu Lys Ala Lys Glu Glu Ser Ala Gln Ala Ala Ala Pro

50 55 60

Lys Lys Glu Glu Thr Lys Lys Glu Glu Pro Lys Lys Glu Ser Lys Pro

65 70 75 80

Ala Pro Lys Lys Glu Glu Ser Lys Lys Ser Thr Gln Ser Thr Thr Ser

85 90 95

Ala Pro Thr Phe Thr Asn Phe Ser Arg Asn Glu Glu Arg Val Lys Met

100 105 110

Asn Arg Met Arg Leu Arg Ile Ala Glu Arg Leu Lys Glu Ser Gln Asn

115 120 125

Thr Ala Ala Ser Leu Thr Thr Phe Asn Glu Val Asp Met Ser Asn Leu

130

135

140

Met Asp Phe Arg Lys Lys Tyr Lys Asp Glu Phe Ile Glu Lys Thr Gly

145

150

155

160

Ile Lys Leu Gly Phe Met Gly Ala Phe Ser Lys Ala Ser Ala Leu Ala

165

170

175

Leu Lys Glu Ile Pro Ala Val Asn Ala Ala Ile Glu Asn Asn Asp Thr

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185

190

Leu Val Phe Lys Asp Tyr Ala Asp Ile Ser Ile Ala Val Ala Thr Pro

195

200

205

Lys Gly Leu Val Thr Pro Val Val Arg Asn Ala Glu Ser Leu Ser Ile

210

215

220

Leu Gly Ile Glu Lys Glu Ile Ser Asn Leu Gly Lys Lys Ala Arg Asp

225

230

235

240

Gly Lys Leu Thr Leu Glu Asp Met Thr Gly Gly Thr Phe Thr Ile Ser

245

250

255

Asn Gly Gly Val Phe Gly Ser Leu Tyr Gly Thr Pro Ile Ile Asn Met

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Pro Gln Thr Ala Val Leu Gly Leu His Gly Val Lys Glu Arg Pro Val

275

280

285

Thr Val Asn Gly Gln Ile Val Ser Arg Pro Met Met Tyr Leu Ala Leu

290

295

300

Thr Tyr Asp His Arg Val Val Asp Gly Arg Glu Ala Val Ile Phe Leu

305

310

315

320

Arg Thr Ile Lys Glu Leu Ile Glu Asp Pro Arg Lys Met Leu Leu Leu

325

330

335

Glu

<210> 85

<211> 1806

<212> DNA

<213> Candida albicans

<400> 85

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<210> 86

<211> 574

<212> PRT

<213> *Candida albicans*

<400> 86

Met Phe Thr Arg Ser Leu Ile Lys Gly Gly Gly Arg Leu Ala Thr Thr
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Arg Ser Leu Val Asn Asn Ser Thr Ser Leu Val Leu Lys Asn Gln Phe
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Lys Lys Tyr Ser Thr Ser Thr Pro Pro Lys Val Ala Lys Ser Lys Ser
 35 40 45

Ser Thr Ile Gly Lys Ile Phe Arg Tyr Thr Phe Tyr Thr Ala Val Ile
 50 55 60

Ser Val Ile Gly Ser Ala Gly Leu Ile Gly Tyr Lys Ile Tyr Glu Glu
 65 70 75 80

Ser Gln Pro Val Asp Gln Val Lys Gln Thr Pro Leu Phe Pro Asn Gly
 85 90 95

Glu Lys Lys Lys Thr Leu Val Ile Leu Gly Ser Gly Trp Gly Ala Ile
 100 105 110

Ser Leu Leu Lys Asn Leu Asp Thr Thr Leu Tyr Asn Val Val Ile Val
 115 120 125

Ser Pro Arg Asn Tyr Phe Leu Phe Thr Pro Leu Leu Pro Ser Val Pro
 130 135 140

Thr Gly Thr Val Glu Leu Arg Ser Ile Ile Glu Pro Val Arg Ser Val

145

150

155

160

Thr Arg Arg Cys Pro Gly Gln Val Ile Tyr Leu Glu Ala Glu Ala Thr

165

170

175

Asn Ile Asn Pro Lys Thr Asn Glu Leu Thr Leu Lys Gln Ser Thr Thr

180

185

190

Val Val Ser Gly His Ser Gly Lys Asp Thr Ser Ser Ser Lys Ser Thr

195

200

205

Val Ala Glu Tyr Thr Gly Val Glu Glu Ile Thr Thr Thr Leu Asn Tyr

210

215

220

Asp Tyr Leu Val Val Gly Val Gly Ala Gln Pro Ser Thr Phe Gly Ile

225

230

235

240

Pro Gly Val Ala Glu Asn Ser Thr Phe Leu Lys Glu Val Ser Asp Ala

245

250

255

Ser Ala Ile Arg Arg Lys Leu Met Asp Val Ile Glu Ala Ala Asn Ile

260

265

270

Leu Pro Lys Asp Asp Pro Glu Arg Lys Arg Leu Leu Ser Ile Val Val

275

280

285

Cys Gly Gly Gly Pro Thr Gly Val Glu Ala Ala Gly Glu Ile Gln Asp

290

295

300

Tyr Ile Asp Gln Asp Leu Lys Lys Trp Val Pro Glu Val Ala Asp Glu
305 310 315 320

Leu Lys Val Ser Leu Val Glu Ala Leu Pro Asn Val Leu Asn Thr Phe
325 330 335

Asn Lys Lys Leu Ile Asp Tyr Thr Lys Glu Val Phe Lys Asp Thr Asn
340 345 350

Ile Asn Leu Met Thr Asn Thr Met Ile Lys Lys Val Asn Asp Lys Ser
355 360 365

Leu Ile Ala Asn His Lys Asn Pro Asp Gly Ser Thr Glu Ser Ile Glu
370 375 380

Ile Pro Tyr Gly Leu Leu Ile Trp Ala Thr Gly Asn Ala Pro Arg Asp
385 390 395 400

Phe Thr Arg Asp Leu Ile Ala Lys Val Asp Glu Gln Lys Asn Ala Arg
405 410 415

Arg Gly Leu Leu Val Asp Glu Arg Leu Lys Val Asp Gly Thr Asp Asn
420 425 430

Ile Phe Ala Leu Gly Asp Cys Thr Phe Thr Lys Tyr Pro Pro Thr Ala
435 440 445

Gln Val Ala Phe Gln Glu Gly Glu Tyr Leu Ala Asn Tyr Phe Asp Lys

450

455

460

Leu His Ala Val Glu Ser Leu Lys Tyr Thr Ile Ala Asn Pro Thr Pro

465

470

475

480

Lys Asp Asn Val Glu Lys Leu Ser Arg Lys Leu Ala Arg Leu Glu Lys

485

490

495

Asn Leu Pro His Phe Ile Tyr Asn Tyr Gln Gly Ser Leu Ala Tyr Ile

500

505

510

Gly Ser Glu Lys Ala Val Ala Asp Leu Val Trp Gly Asp Trp Ser Asn

515

520

525

Ile Ser Ser Gly Gly Asn Leu Thr Phe Leu Phe Trp Arg Ser Ala Tyr

530

535

540

Ile Tyr Met Cys Leu Ser Val Lys Asn Gln Val Leu Val Val Leu Asp

545

550

555

560

Trp Ala Lys Val Tyr Phe Phe Gly Arg Asp Cys Ser Lys Glu

565

570

<210> 87

<211> 1137

<212> DNA

<213> Candida albicans

<400> 87

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<210> 88

<211> 378

<212> PRT

<213> Candida albicans

<400> 88

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1

5

10

15

Leu Pro Ala Leu Ala Glu Leu Asp Ile Leu Lys Arg Cys Tyr Ile Cys

20

25

30

Lys Asp Leu Leu Asn Ala Pro Val Arg Thr Gln Cys Asp His Thr Tyr

35

40

45

Cys Ser Gln Cys Ile Arg Glu Phe Leu Leu Arg Asp Asn Arg Cys Pro

50

55

60

Leu Cys Lys Thr Glu Val Phe Glu Ser Gly Leu Lys Arg Asp Pro Leu

65

70

75

80

Leu Glu Glu Ile Val Val Ser Tyr Ala Ser Leu Arg Pro His Leu Leu

85

90

95

Arg Leu Leu Glu Ile Glu Lys Val Glu Ser Lys Gln Glu Val Asp Arg

100

105

110

Glu Lys Ser Ala Asn Glu Ser Ala Ser Asn Gly Asn Arg Asn Val Asn

115

120

125

Asn Asp Val Asp Glu Thr Ala Arg Val Lys Asp Gln Ser Asn Ala Asp

130

135

140

Glu Leu Gly Glu Glu Lys Gly Gln Ala Gln His Gly Glu Gln Val Asn

145

150

155

160

Glu Gln Thr Thr Glu Val Ile Ser Leu Leu Ser Asp Asp Glu Glu Asn
165 170 175

Gly Ser Asp Ser Leu Val Lys Cys Pro Ile Cys Phe Glu Arg Met Glu
180 185 190

Leu Asp Val Leu Gln Gly Lys His Ile Asp Asp Cys Leu Ser Gly Lys
195 200 205

Ser Thr Lys Arg Thr Pro Thr Asp Ile Leu Ser Pro Lys Ala Lys Arg
210 215 220

Pro Lys Gln Ile Thr Ser Phe Phe Lys Pro Thr Ile Asp Thr Lys Thr
225 230 235 240

Pro Ser Pro Pro Thr Ser Lys Ala Ser Thr Thr Pro Thr Ala Thr Pro
245 250 255

Thr Thr Thr Leu Leu Lys Ala Asn Val Ala Ser Pro Ser Pro Val Ala
260 265 270

Gln Ser Thr Val His Lys Gly Lys Pro Leu Pro Lys Leu Asp Phe Ser
275 280 285

Ser Leu Ser Thr Gln Lys Ile Lys Ala Lys Leu Ser Asp Leu Lys Leu
290 295 300

Pro Thr Thr Gly Ser Arg Asn Glu Met Glu Ala Arg Tyr Leu His Tyr

305

310

315

320

Tyr Val Ile Tyr Asn Ala Asn Leu Asp Ser Asn His Pro Val Lys Glu

325

330

335

Ser Ile Leu Arg Gln Gln Leu Lys Gln Trp Glu Met Val Gln His Gln

340

345

350

Pro Ser Phe Gly Asp Ala Glu Trp Lys Gly Ala Glu Thr Gly Asn Trp

355

360

365

Lys Glu Leu Ile Ala Arg Ala Arg Ser Asn

370

375

<210> 89

<211> 764

<212> DNA

<213> Candida albicans

<400> 89

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<210> 90

<211> 179

<212> PRT

<213> Candida albicans

<400> 90

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Glu Ser Leu Asn Ile Leu Ile Glu Ser Glu Phe Ser Ser Met Ser Ser

20

25

30

Asp Thr Thr Ala Phe Gln Ala Pro Pro Thr Lys Ala Pro Glu Ala Ser

35

40

45

Met Asp Ser Gly Thr Ile Pro Lys Arg Ser Pro Ala Arg Leu Phe Gln

50

55

60

Arg Trp Ile Ser Ser Ser Ser Ser Lys Asp Lys Pro Val Tyr Ala Glu

65

70

75

80

Lys Ala Leu Leu Lys Lys Gln Asn Ile Ala Pro Glu Pro Ile Lys Ile

85

90

95

Thr Lys Gln Gln Val Pro Ala Lys Gln Ile Gly Thr Ser Glu Pro Ser

100

105

110

Ser Pro Leu Ser Val Ala Ser Ser His Asp Asn Ser Cys Ser Asp Ser

115

120

125

Ser Ala Ala Ser Ile Phe Ser Asp Ser Lys Asn Asn Asn Ser Met Gln

130

135

140

Met Leu Leu Thr Asp Asp Ile Glu Asp Ile Leu Glu Asp Ile Asp Asp

145

150

155

160

Ala Glu Ile Tyr Asp Ala Glu Lys Val Thr Ile Thr Tyr Ile Ser Ser

165

170

175

Lys Ser Cys

<210> 91

<211> 2154

<212> DNA

<213> Candida albicans

<400> 91

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<210> 92

<211> 717

<212> PRT

<213> Candida albicans

<400> 92

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Ala Pro Ala Phe Gly Ile Glu Leu Glu Phe Ser Gln Gln Gly Ser Ser

20

25

30

Asp Gly Ala Ile Glu Lys Ala Ala Leu Ala Val Pro Val Phe Ser Val

35

40

45

Asp Asn Gln Asp Phe Val Leu Ile Arg Asp Leu Ala Lys Tyr Trp Gly

50

55

60

Tyr Pro Ser Ser Tyr Gln Leu Ile Val Lys Leu Val Lys Cys Ala Asn

65

70

75

80

Ile Glu Lys Ser Gln Ile Leu Lys Thr Asp Lys Asp Leu Asn Lys Glu

85

90

95

Leu Phe Glu Leu Asp Leu Ile Glu Glu Ala Asp Thr Lys Ile Asp Leu

100

105

110

Phe Tyr Ile Ser Leu Pro Leu Val Tyr Ser Arg Ile Glu Asn Lys Lys

115

120

125

Val Phe Tyr Val Ser Arg Glu Pro Glu Gln Pro Lys Val Ser Lys Ala

130

135

140

Pro Thr Gln Glu Lys Pro Ala Ser Val Val Ala Ala Glu Glu Asp Asp

145

150

155

160

Asp Asn Leu Asp Asp Asp Glu Glu Asp Glu Val Asp Glu Asp Met Asp

165

170

175

Glu Asp Asn Asp Asn Ser Gly Glu Leu Ser Lys Gly Tyr Lys His Met

180

185

190

His Lys Asp His Pro Lys Tyr Ile Asn Asp Asp Arg Val Thr Ile Gly

195

200

205

Gln Val Phe His Gln Tyr Gly Leu Asp Pro Ser Thr Pro Leu Thr His

210

215

220

Ser Leu Phe Asn Ser Ile Asn Ser Met Ser Lys Leu Asn Tyr Tyr Lys

225

230

235

240

Asn Phe Gly Val Ser Gly Tyr Arg Phe Leu Pro Asn Ser Lys Leu Ser
245 250 255

Tyr Ala Glu Arg Glu Leu Val Leu Asn Ala Asn Asn Tyr Asn Asp Met
260 265 270

His Ile Asn Glu Lys Thr Glu Ser Lys Pro Lys Lys Ser Phe Arg Lys
275 280 285

Pro Ile Gly Lys Ser Lys Lys His Asn Leu Gln Ile Asp Pro Asn Ser
290 295 300

Ile Asp Leu Ser Glu Ser Val Ile Pro Gly Gln Gly Phe Ile Pro Asp
305 310 315 320

Phe Ser Ile His His Leu Cys Lys Val Pro Asn Tyr Tyr Val Thr Ser
325 330 335

Asn His Gln Ser Leu Pro Ser Ser Phe Asn Thr Lys Asn Leu Asn Ala
340 345 350

Thr Ser Asn Ser Ser Tyr Leu Phe Asn Asp Asn Val Lys Ile Lys Ser
355 360 365

Lys Ser Ile Gln Lys Leu Val Phe Asn Ser Asp Thr Asp Asn Tyr His
370 375 380

His Thr Lys Tyr Phe Tyr Thr Lys Thr Tyr Arg Gly Pro Gly Ser Gly

385

390

395

400

Asn Tyr Lys Asp Gly Ala Leu Met Asn Lys Ile Asn Lys Ile His Leu

405

410

415

Ser Ser Asn Lys Lys Pro Arg His Lys Arg Lys Val Ser Asn Asn Asn

420

425

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Arg Tyr Asn Lys Ser Leu Lys Gly Leu Val His Glu Lys Phe Asp Lys

435

440

445

Asn Phe Val Glu Tyr Leu Leu Ser Glu Gln Arg Lys Tyr Thr Glu Asp

450

455

460

Tyr Ser Asn Leu Glu Ile Leu His Asn Ser Leu Gln Phe Asn Val Leu

465

470

475

480

Leu Asn Thr Tyr Arg Gly Val Ala Gln Glu Thr Trp Asn Asn Tyr Tyr

485

490

495

Lys Phe Lys Leu Ile Asp Phe Glu Gln Leu Lys Ala Leu Gln Met Glu

500

505

510

Ala Asn Glu Leu Glu Glu Arg Lys Leu Asp Ala Ala Arg His Gln Gln

515

520

525

Trp Ala Glu Glu Glu Lys Leu Arg Gln Glu Arg Leu Arg Leu Val Phe

530

535

540

Glu Asp Glu Arg Asn Glu Phe Glu Gln Leu Gln Ser Glu Phe Gly Gln

545 550 555 560

Arg Lys Lys Asp Leu Tyr Glu Lys Leu Arg Arg Arg Gln Leu Glu Ala

565 570 575

Ser Leu Ser Asp Ser Phe Glu Ala Asp Ser Glu Asn Asp Asp Glu Ser

580 585 590

Glu Leu Ala Gln Ile Gln Gln Asp Phe Glu Ser Ser Ala Asn Ala Leu

595 600 605

Lys Thr Lys Phe Glu Ala Lys Arg Lys Asp Leu Ile Asn Pro Ala Pro

610 615 620

Pro Pro Gln Pro Ile Glu Thr Pro Gln Leu Asp Leu Asn Asn Lys Phe

625 630 635 640

Ser Leu Pro Thr Val Tyr Pro Glu Ile Ile Arg Asn Leu Pro Leu Glu

645 650 655

Leu Arg Gly Ile Val Gln Glu Ser Lys Glu Glu Leu Pro Pro Ile Lys

660 665 670

Lys Pro Ile Leu Tyr Val Thr Thr Tyr Pro Glu Arg Pro Asn Pro Glu

675 680 685

Tyr Leu Thr Arg Ile Glu Ile Ile Lys Leu Pro Asn Ala Asn Ser Val

690

695

700

Gly Trp Asp Asn Phe Lys Lys Tyr Lys Asp Ser Asp Val

705

710

715

<210> 93

<211> 411

<212> DNA

<213> Candida albicans

<400> 93

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<210> 94

<211> 136

<212> PRT

<213> Candida albicans

<400> 94

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15

Ile Tyr Lys Tyr Leu Phe Met Ser Ala Asp Gly Lys Lys Glu Asp Ile

20

25

30

Leu Glu Thr Gly Glu Lys Ile Asp Gly Glu Leu Gln Val Lys Leu Gly

35

40

45

Asp Lys Phe Phe Pro Ile Ser Arg Phe Ala Lys Pro His Ala Val Val

50

55

60

His Pro Ala Asp His His Ser Lys Val Asp Ala Asn Lys Phe Pro Asp

65

70

75

80

Val Glu Pro Glu Gln Lys Gln Lys Glu Asp Leu Lys Glu Phe Asn Gln

85

90

95

Gln Val Leu Lys Pro Asp Ile Asn Lys Pro Lys Val Asp Pro Asn Ser

100

105

110

Phe Pro Asp Ile Glu Pro Glu Ala Lys Glu Arg Glu Ala Lys Leu Lys

115

120

125

Ala Glu Arg Leu Lys Lys Ser Gln

130

135

<210> 95

<211> 1193

<212> DNA

<213> *Candida albicans*

<400> 95

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<210> 96

<211> 238

<212> PRT

<213> *Candida albicans*

<400> 96

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5

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15

Pro Pro Arg Gln Gln Gln Arg Arg Lys Ser Asn Thr Gly Ala Ile Ser

20

25

30

Thr Pro Val Ala Ser Ser Val Leu Leu Thr Pro Ser Thr Thr Thr Lys

35

40

45

Lys Pro Thr Arg Thr Pro Val Ser Gln Lys Arg Lys Gln Gly Val Gln

50

55

60

Leu Ser Pro Pro Gln Ala Asn Lys Phe Pro Phe Thr Pro Ile Thr Pro

65

70

75

80

Gln Lys Ser Pro Cys Lys Thr Arg Lys Asn Leu Asp Leu Phe Thr Ser

85

90

95

Asn Glu Lys Phe Gly Leu Leu Leu Pro Ser Pro Ser Thr Ile Gly Ser

100

105

110

Gly Arg Cys His Asn Ser Phe Thr Gln Ala Pro Pro Pro Leu Phe Asp

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130

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Glu Val Met Asp Ile Asp Glu Val Ala Lys Ile Pro Arg Ala Lys Leu
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Arg Asn Pro Phe Ile Asp Thr Phe Glu Pro Thr Ser Pro Val Thr Pro
 180 185 190

Glu Glu Ser Thr Gly Asp Arg Ile Asn Tyr Asp Thr His Met Glu Leu
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<211> 888

<212> DNA

<213> Candida albicans

<400> 97

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30

Val Thr Ile Thr Ser Cys Glu Glu Asn Lys Cys His Glu Thr Glu Val

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45

Thr Thr Gly Val Thr Thr Val Thr Glu Val Asp Thr Thr Tyr Thr Thr

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Tyr Cys Pro Leu Ser Thr Thr Glu Ala Pro Ala Pro Ser Thr Ala Thr

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Asp Val Ser Thr Thr Val Val Thr Ile Thr Ser Cys Glu Glu Asp Lys

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95

Cys His Glu Thr Ala Val Thr Thr Gly Val Thr Thr Val Thr Glu Gly

100

105

110

Thr Thr Ile Tyr Thr Thr Tyr Cys Pro Leu Pro Ser Thr Glu Ala Pro

115

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125

Gly Pro Ala Pro Ser Thr Ala Glu Glu Ser Lys Pro Ala Glu Ser Ser

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Pro Val Pro Thr Thr Ala Ala Glu Ser Ser Pro Ala Lys Thr Thr Ala

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Ala Glu Ser Ser Pro Ala Gln Glu Thr Thr Pro Lys Thr Val Ala Ala

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<213> *Candida albicans*

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<213> Candida albicans

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25

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Gln Ser Gln Pro Asn Tyr Ser Gln Gln Thr Gln Asp Arg Gly Met Phe

35

40

45

Ser Gly Gly Gly Gly Gly His Gly His Tyr Gln Gln Gln Gln Gly Tyr

50

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Asn Ala Tyr Gly Pro Pro Pro Pro Gln Gly Gly Tyr Tyr Gln Gln Gln

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Pro Gly Gly Gly Gly Gly Tyr Tyr Gln Gln Gln Gln Gln Gln Gln Pro

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90

95

Met Tyr Val Gln Gln Gln Pro Arg Ser Gly Gly Asn Asp Ser Cys Leu

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Phe

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<212> DNA

<213> Candida albicans

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<212> PRT

<213> Candida albicans

<400> 102

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Gln Ile Arg Pro Gly Asp Leu Asp His Leu Leu Val Phe Val Lys Leu

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Ser Ser Tyr Lys Phe Ser Glu Glu Ala Glu Lys Asp Leu Ile Lys Asn

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Tyr Glu Phe Gly Val Thr Gly Lys Asp Asp Val Leu Ala Ser Lys Leu

85 90 95

Arg Ile Ile Tyr Gln Tyr Leu Thr Tyr Pro Gln Ser Val Gly Gly Cys

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105

110

Gly Ile Thr Pro Asn Ser Gly Asp Trp Lys Phe Val Thr Ser Ile Val

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Pro Ile Thr Asn Ala Phe Asn Glu Thr Thr Leu Val Glu Asp Leu Lys

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140

Ile Asn Val Thr Gln Pro Asn Leu Ser Ile Ala Thr Ile Lys Lys Thr

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Tyr Gly Val Glu Val Ala Leu Tyr Phe Glu Tyr Ile Lys His Tyr Thr

165

170

175

Phe Trp Leu Leu Leu Leu Ser Ile Ile Gly Leu Val Ser His Phe Arg

180

185

190

Lys Asp Lys Arg Phe Ser Leu Thr Phe Ala Phe Ile Asn Leu Leu Trp

195

200

205

Gly Val Leu Phe Leu Ala Ser Trp His Arg Arg Glu Gln His Leu Val

210

215

220

Asn Val Trp Gly Val Gln Asn Ser His Leu Ile Glu Glu His Asn Ser

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235

240

Glu Leu Ala Lys Val Asn Glu Arg Tyr Glu Glu Lys Ser Thr Tyr Phe
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His Ala Asn Asn Thr Asn Gly Phe Arg Phe Leu Lys Gln Leu Ala Phe
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290 295 300

Gly Lys Ser Leu Leu Thr Leu Leu Pro Thr Val Leu Ile Ser Val Phe
305 310 315 320

Val Pro Ile Leu Thr Ile Val Tyr Asn Ala Val Thr Asp Ile Ile Ile
325 330 335

Lys Trp Glu Asn His Asp Asn Gln Tyr Ser Lys Asn Asn Ser Ile Leu
340 345 350

Val Lys Thr Phe Val Leu Asn Phe Leu Thr Gly Tyr Val Pro Leu Ile
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385 390 395 400

Phe Tyr Thr Lys Tyr Leu Leu Lys Leu Lys Ser Gln Glu Glu Phe Lys

405

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425

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Asn Gln Val Ile Gln Leu Val Leu Lys Tyr Ile Leu Pro Leu Gly Leu

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440

445

Arg Phe Val Phe Asn Phe Ile Glu Thr Lys Ile Gln Lys Lys Pro Gln

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455

460

Leu Gln Thr Lys Asp Asp Asn Pro Asp Glu Ser Ile Trp Leu His Asn

465

470

475

480

Val Arg Leu Ser Leu Lys Leu Pro Glu Tyr Asn Val Asp Asp Asp Phe

485

490

495

Arg Gly Leu Val Leu Gln Phe Gly Tyr Leu Ile Met Phe Gly Pro Val

500

505

510

Trp Pro Leu Ala Pro Leu Val Cys Ile Ile Phe Asn Leu Ile Phe Phe

515

520

525

Lys Leu Asp Asn Phe Lys Leu Leu Asn Gly Lys Tyr Phe Lys Pro Pro

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535

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Val Pro Arg Arg Val Asp Ser Ile His Pro Trp Asn Leu Ala Leu Phe
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Leu Ala Glu Leu Glu Lys Lys Lys Thr Lys Leu Asn Asp Phe Lys Asp
740 745 750

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755 760 765

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785 790 795 800

Ala Lys Lys Ser Thr Ser Thr Ser Thr Ser Ala Ala Thr Asp Thr Thr
805 810 815

Asn Thr Ala Pro Ser His Ser Gly Pro Thr Pro Val Thr Ser Ser Glu
820 825 830

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Thr Leu Ala Asn Asp Glu Thr Arg Lys Thr Leu Asp Pro Lys Gly Val
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Gly Ser Thr Thr Thr Gly Asp Lys Asp Thr Val Ser Ser Asp Lys Ala
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Ser Thr Ser Thr Pro Ser Gly Thr Asp Lys Lys Thr Ser Pro Lys Lys
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Leu Val Thr Asn Ala Val Asn Lys Val Glu Asn Asn Asp Asp Phe Lys
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<212> PRT

<213> Candida albicans

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25

30

Gln Gln Pro Gln Ile Leu Leu Thr Ser Pro His Leu Ile Ser Val Gln

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Leu Ser Ser Leu Leu Ser Lys Asn Gln Thr Thr Thr Thr Thr Val Ser

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Gln Val Ile Val Pro Asn Leu Leu

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<212> DNA

<213> Candida albicans

<400> 104

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<210> 105

<211> 1603

<212> PRT

<213> *Candida albicans*

<400> 105

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Leu Gly Lys Glu Ile Asp Leu Lys Asp Phe Arg Arg Gly Ile Ser Phe

20

25

30

Lys Val Phe Asp Phe Ser Val Thr Tyr Lys Leu Ala Arg Lys His Phe

35

40

45

Glu Thr Ser Val Ala Leu Leu Lys Ala Phe Thr Leu Ser Glu Tyr Ala

50

55

60

Ser Glu Tyr Ile Glu Asp Phe Asp Lys Val Thr Glu Val Gln Val Ser

65

70

75

80

Glu Ser Glu Ile Ser Asp Leu Ser Ser Ile Asn Ser Ala Glu Ser Ile

85

90

95

Pro Leu Asn Asp Ala Ser Pro Ser Glu Leu Asp Glu Ser Asn Thr Lys

100

105

110

Lys Ile Lys Thr Val Leu Thr Val Arg Asp Ile Leu Val Ser Asn Ala

115

120

125

Gly Lys Ser Asp Glu Lys Asp Pro Asp Arg Leu Thr Leu Ser Ile Pro

130

135

140

Glu Val Asp Gly Arg Val Asp Met Phe Leu Val Trp Cys Cys Phe Tyr

145

150

155

160

Ala Lys Thr Met Leu Glu Arg Phe Lys Pro Thr Val Glu Ser Ser Cys

165

170

175

Thr Lys Asn Gln Ile Lys Ile Ile Arg Gly Pro Arg Lys Lys Leu Lys
 180 185 190

Leu Asp Val His Leu Asp Ser Val Ala Leu Val Ile Arg Leu Pro Arg
 195 200 205

Lys Val Asp Val Met Ile Glu Ile Asp Arg Ala Arg Leu Lys Asn Ala
 210 215 220

Leu Val Leu Lys Ser Ala Asp Ile Val Asn Cys Arg Leu Tyr Val Val
 225 230 235 240

Asp Pro Ser Thr Lys Phe Trp Ala Arg Leu Leu Ile Ile Lys Glu Pro
 245 250 255

Lys Phe Ser Ile Asp Phe Thr Lys Ser Ile His Asp Ala Tyr Phe Gly
 260 265 270

Ile Ser Thr Arg Ser Ile Arg Ile Ser Val Pro Asn Arg Phe Leu Phe
 275 280 285

Tyr Thr Val Ile Asp Asn Phe Ile Thr Phe Phe Lys Ala Ile Lys Gln
 290 295 300

Leu Ser Gln Asn Phe Arg Tyr Phe Asn Trp Gly Ile Asp Glu Phe Glu
 305 310 315 320

Thr Ile Tyr Pro Ser Gln Lys Asn Ala Ile Val Phe Pro His Val Asn
 325 330 335

Ile Lys Thr Ala Val Leu Gly Met Glu Leu Arg Ala Asp Pro Phe Glu

340

345

350

Asn Lys Leu Ala Leu Ile Phe Glu Leu Gly Lys Ile Glu Gln Lys Glu

355

360

365

Arg Ile Arg Lys Trp Lys Ala Phe Glu Lys Lys Ser Gln Glu Ile Leu

370

375

380

Asp Gly Val Glu Ser Asn Ile Glu Asp Gln Ile Glu Leu Ser Asn Ile

385

390

395

400

Ala Ala Pro Ile Pro Ser Pro Ala Pro Ile Ala Ser Lys Thr Thr Thr

405

410

415

Ser Thr Met Thr Pro Asn Val Ala Gly Asp Ser Ile Thr Arg Pro Asp

420

425

430

Ser Pro Pro Arg Ser Gly Ser Ser Glu Cys Ser Phe Thr Ser Gly Ala

435

440

445

Gly Leu Ile Lys Asn Lys Leu Leu Asn Arg Lys Lys Pro Thr Lys Thr

450

455

460

Ser Val Asn Gly Val Ala Pro Val Asn Glu Ile Glu Pro Ala Asp Ala

465

470

475

480

Lys Tyr Thr Val Glu Glu Ala Glu Glu Arg Ile Ala Glu Ala Lys Glu
485 490 495

Arg Leu Phe Glu Asn Phe Ser Lys Ser Trp Cys Arg Lys Tyr Arg Val
500 505 510

Phe Glu Glu Thr Lys Cys Arg Lys Trp Lys Glu Arg Gly Glu Asn Ile
515 520 525

Trp Gly Ser His Asp Ile Asn Glu Val Met Lys Glu Lys Tyr Asp Ile
530 535 540

Val Glu Tyr Asp His Gly Lys Pro Leu Thr Gly Ala Ile Phe Arg Asp
545 550 555 560

Val Asp Leu Thr Leu Asp Lys Phe Lys Leu Gly Asp Val Asp Lys Phe
565 570 575

Leu Tyr Asp Tyr Ala Lys His Gln Pro Lys Leu Thr Tyr Ser Ile Leu
580 585 590

Cys Pro Met Tyr Val Glu Leu Lys Ala Arg Lys Phe Tyr Met Ile Leu
595 600 605

Lys Asp Tyr Pro Leu Pro Val Ala Ser Phe Pro Arg Ser Asn Thr Pro
610 615 620

Ser Ser Pro Thr Ile His Ile Lys Thr Asn Leu Val Ile His Glu Lys
625 630 635 640

Leu Phe Ser Arg Lys Glu Glu Leu Arg Tyr Ile Tyr Val Pro Phe Ser

645

650

655

Pro Ala Val Pro Asp Asp Gly Arg Ala Asp Asn Phe Tyr Ser Val Asn

660

665

670

Ile Pro Arg Thr Leu Thr Pro Val Lys Val Ala Ala Asp Phe Asn Cys

675

680

685

Asp Leu Asn Thr Asp Arg Ser Cys Thr Ile Ser Trp Cys Lys Ser Tyr

690

695

700

Gln Pro Ala Phe Ser Ala Met Ala Met Ala Phe Glu Asn Phe Thr Lys

705

710

715

720

Pro Ala Ile Asp Asp Ser Pro Ile Gly Trp Trp Asp Lys Ile Pro Leu

725

730

735

Ile Val His Gly Arg Tyr Gln Phe Asn Ile Ala Asn Glu Leu Cys Leu

740

745

750

His Met Lys Ser Gly Arg Asn Pro His Glu Leu Ile Gly Lys Asn Ala

755

760

765

Gly Phe Val Phe Cys Trp Lys Asn Asn Val Lys Leu Val Ile Asp Gly

770

775

780

Thr Ile Asn Ser Lys Asp Leu Val Val Leu Glu Ser Asp Asp Phe Ile
 785 790 795 800

Phe Ala Ile Pro Asn Tyr Ser Ile Glu Glu Lys Asn Val Trp Ser Leu
 805 810 815

Phe Tyr Asp Asp Phe Asp Asp Pro Val Pro Asp Ile Glu Leu Glu Ser
 820 825 830

Lys Lys Phe Asn Lys Tyr Val Ile Lys Leu Ser Ser Ser Glu Arg Val
 835 840 845

Arg Trp Val Leu Gly Met Leu Phe Glu Arg Asn Lys Tyr Pro Thr Gln
 850 855 860

Lys Phe Ser Asp Glu Glu Leu Arg Val Ser Thr Phe Lys Pro His Tyr
 865 870 875 880

Glu Val Met Ile Thr Asn Pro Ala Asn Glu Phe His Pro Asp Ser Tyr
 885 890 895

Glu Gly Tyr Arg Ser Asp Tyr Val His Met Ser Leu Ser Val Ile Ser
 900 905 910

Arg Ala Lys Thr Gly Glu Thr Ala Asn Thr Ala Tyr Phe Thr Pro Leu
 915 920 925

Ser Phe His His Phe Phe Tyr Trp Trp Asp Thr Leu Leu His Tyr Ser
 930 935 940

Pro Pro Pro Ile Lys Arg Gly Lys Leu Phe Glu Met Asp Gln Val Lys

945 950 955 960

Lys Pro Lys Ile Lys Phe Gly Thr His Met Phe Thr Met Lys Tyr Gln

965 970 975

Leu Ile Phe Asn Pro Val Thr Ile Ser His Leu Tyr Arg His Ser Thr

980 985 990

Ser Asp Val Pro Lys Lys Asn Ser Arg Val Ala Phe Thr Gly Leu Lys

995 1000 1005

Gly Arg Phe Asp Val Cys Glu Ile Asp Leu His Gln Arg Arg Glu Tyr

1010 1015 1020

Val Thr His Glu Asn Lys Lys Leu Asn Arg Lys Thr Lys Ile Arg His

1025 1030 1035 1040

Leu Lys Met Asn Gln Ala Glu Val Asn Ile Glu Asn Ala Asp Ala Arg

1045 1050 1055

Val Ile Tyr Ala Leu Phe Asn Asp Thr Ser Val Thr Gly Lys Leu Met

1060 1065 1070

Thr Tyr Leu Asn Ala Asp Ser Ser Asp Ser Ser Thr Asp Gly Ser Gln

1075 1080 1085

Ser Ser Asp Tyr Arg Gly Ser Ser Tyr Ser Arg Trp Leu Glu Asn Val
 1090 1095 1100

Glu Ile Ser Asp Gly Asp Phe Ser Trp Tyr Asp Pro Lys Asp Phe Ile
 1105 1110 1115 1120

Glu Leu Glu Val Arg Glu Pro Leu Ser Pro Tyr Pro Lys Thr Lys Ile
 1125 1130 1135

Leu Pro Phe Phe Ala Thr Pro Lys Phe Ser Tyr Tyr Arg Glu Phe Thr
 1140 1145 1150

Leu Gln Lys Asp Gly Pro Phe Pro Phe Gly Ser Glu Lys Ile His Asp
 1155 1160 1165

Cys Ile Met Asn Leu Asp Lys Pro Ala Ile Val Gln Ser Arg Ile Leu
 1170 1175 1180

Leu Asp Arg Leu Gln Asn Leu Glu Asp Glu Leu Ala His Asn Glu Glu
 1185 1190 1195 1200

Met Leu Arg Arg Phe Lys Ile Gln Asn Gly Pro Glu Phe Gln His Asp
 1205 1210 1215

Ile Arg Met Thr Glu Gln Glu Ile Ser Thr Leu Lys Glu Lys Val Glu
 1220 1225 1230

Val Val Arg Ala Ala Tyr Asn Gly Phe Ser Asp Asp Glu Phe Gly Gly
 1235 1240 1245

Leu Pro Ser Ser Ser Ala Asn Asn Val Ala Asp Asp Asp Asp Gly Ser

1250

1255

1260

Ser Ser Leu Ser Arg Ser Ser Thr Gly Leu Ser Ala Tyr Ser Ser His

1265

1270

1275

1280

Val Thr Gln Asp Gln Met Ser Gln Ala Ala Ala Phe Val Ser Ile Ala

1285

1290

1295

Glu Phe His Asn Arg Phe Ile Leu His Asn Leu Thr Leu Lys Trp Asp

1300

1305

1310

Asp Asn Ile Ser Lys Tyr Phe Ile Ser Tyr Met Lys Arg Ile Ala Glu

1315

1320

1325

Arg Lys Ser His Ile Tyr Tyr Met Thr Lys Tyr Ala Val Asp Leu Val

1330

1335

1340

Glu Lys Val Met Gln Glu Asn Ala Lys Glu Gly Glu Pro Thr Ser Gln

1345

1350

1355

1360

Pro Arg Glu Lys Val Phe Gln Lys Ser Phe Lys Gln Ala Asp Asn Ile

1365

1370

1375

Val Asp Ser Phe Glu Asp Asp Leu Asp Glu Val Lys Asp Ser Glu Arg

1380

1385

1390

Glu Glu Pro Glu Tyr Lys Tyr Leu Val Lys Leu Ile His Pro Gln Ile
 1395 1400 1405

Gln Met Ile Ser Arg Lys Ala Pro Asp Ser Cys Val Leu Ile Ser Ser
 1410 1415 1420

Lys Asp Leu Glu Leu Arg Ile Val Asp Ile Asn Met Lys Asp Arg Val
 1425 1430 1435 1440

Asn Ile Leu Ser Glu Asn Asn Glu Met Thr Ala Arg Ile Glu Arg Arg
 1445 1450 1455

Thr Gly Val Leu Phe Arg Glu Glu Gln Leu Phe Val Leu Gln Arg Asp
 1460 1465 1470

Glu Val Val Ser Asn Ala Lys Ser Lys Phe Ala Lys Asn Gly Tyr Met
 1475 1480 1485

Ser Asp Lys Tyr Asn Trp Pro Pro Trp Phe Glu Cys Glu Val Cys Tyr
 1490 1495 1500

Asp Gly Ser Trp Ala His Glu Tyr Leu Val Ser Glu Lys Asn Thr Ile
 1505 1510 1515 1520

Ala Ile Ile Gln Lys Ser Pro Asn Gln Leu Phe Ile Ser Ser Glu Lys
 1525 1530 1535

Leu Glu Gln Gly Asn Glu Leu Val Val Tyr Leu Ser Lys Tyr Val Ile
 1540 1545 1550

Asn Ala Thr Ser Ala Gln Tyr Ser Ser Ile Tyr Tyr Val Ile Thr Gly

1555

1560

1565

Leu Leu Leu Ser Asn Asp Asp Lys Glu Ser Asn Tyr Asn Gly Arg Leu

1570

1575

1580

Pro Arg Leu Met Asp Leu Ala Asp Ala Ser Asp Phe Glu Gly Leu Asp

1585

1590

1595

1600

Val Arg Val

<210> 106

<211> 728

<212> DNA

<213> Candida albicans

<400> 106

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<210> 107

<211> 52

<212> PRT

<213> Candida albicans

<400> 107

Met Leu Ile Asp Arg Phe Tyr Ser Cys Arg Phe Ser Asp Phe Ser Lys

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Asn Phe Phe Val Gln Thr Phe Trp Cys Lys Ile Ser Thr Gln Ile Val

20 25 30

Glu Lys Asn Ile Phe Thr His Ser Leu Pro Leu Phe Phe Phe Phe Thr

35 40 45

Ile Ala Thr Asn

50

<210> 108

<211> 440

<212> DNA

<213> Candida albicans

<400> 108

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 tgtctacatt ttcttaaatt tgataaacgc atagtaagtc tttgcttgat atactatgag 180
 atgattagaa ttaaaaagta gacgactagt ttcactagat ttattgaagt gtcaaaatat 240
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 ttgcaaattt ttgtcaaata gagtagaaag taccagtatt cgaaattgtc acgataaagc 360
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 tatgtatgag acataactag 440

<210> 109

<211> 55

<212> PRT

<213> Candida albicans

<400> 109

Met Asn Gly Leu Trp Leu Gly Phe Gly Gln Ser Arg Tyr Tyr Tyr Leu

1 5 10 15

Phe Lys Phe Lys Asp Trp Glu Thr Arg Val Phe Ser Tyr Cys Leu His

20 25 30

Phe Leu Lys Phe Asp Lys Arg Ile Val Ser Leu Cys Leu Ile Tyr Tyr

35 40 45

Glu Met Ile Arg Ile Lys Lys

50 55

<210> 110

<211> 481

<212> DNA

<213> Candida albicans

<400> 110

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<210> 111

<211> 126

<212> PRT

<213> Candida albicans

<400> 111

Met Cys Ala Leu Phe Ser Ala Val Leu Ile Leu Tyr Val Cys Ser Leu

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15

Phe Cys Gly Leu Leu Thr Lys Lys Asn Val Val Leu Thr Gln Arg Tyr

20

25

30

Pro Lys Thr Cys Gly Leu Lys Lys Val Pro Ile Ser Gln Pro Gln Gln

35

40

45

Pro Leu Gln Thr Pro Ser Phe Ala Gln His Ile Phe Ile Gly Ser Pro

50

55

60

Thr Cys His Tyr Asn Leu Arg Ser Pro Ser Leu Ile Val Val Ala Pro

65

70

75

80

His Ser Leu Lys Leu Thr Pro Asn Phe Ala Ile Phe Gln Lys Phe Ser

85

90

95

Leu Phe Arg Val Val His Ala Gln Ile His Phe Phe Ser Ala Gly Pro

100

105

110

Lys Asn Thr Arg Phe Phe Asn Pro Pro Glu Leu Asp Val Tyr

115

120

125

<210> 112

<211> 259

<212> PRT

<213> Candida albicans

<400> 112

Met Ser Ile Ile Phe Arg Lys Arg Leu Asp Ser Asp Arg Asn Ile Asp

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15

Ala Ser Leu Tyr Phe Gly Asn Ile Asp Pro Gln Val Thr Glu Leu Leu

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25

30

Met Tyr Glu Leu Phe Ile Gln Phe Gly Pro Val Lys Ser Ile Asn Met

35

40

45

Pro Lys Asp Arg Ile Leu Lys Thr His Gln Gly Tyr Gly Phe Val Glu

50

55

60

Phe Lys Asn Ser Ala Asp Ala Lys Tyr Thr Met Glu Ile Leu Arg Gly

65

70

75

80

Ile Arg Leu Tyr Gly Lys Ala Leu Lys Leu Lys Arg Ile Asp Ala Lys

85

90

95

Ser Gln Ser Ser Thr Asn Asn Pro Asn Asn Gln Thr Ile Gly Thr Phe

100

105

110

Val Gln Ser Asp Leu Ile Asn Pro Asn Tyr Ile Asp Val Gly Ala Lys

115

120

125

Leu Phe Ile Asn Asn Leu Asn Pro Leu Val Asp Glu Ser Phe Leu Met

130

135

140

Asp Thr Phe Ser Lys Phe Gly Thr Leu Ile Arg Asn Pro Ile Ile Arg

145

150

155

160

Arg Asp Ser Glu Gly His Ser Leu Gly Tyr Gly Phe Leu Thr Tyr Asp

165

170

175

Asp Phe Glu Ser Ser Asp Leu Cys Ile Gln Lys Met Asn Asn Thr Ile

180

185

190

Leu Met Asn Asn Lys Ile Ala Ile Ser Tyr Ala Phe Lys Asp Ser Ser

195

200

205

Val Asp Gly Lys Lys Ser Arg His Gly Asp Gln Val Glu Arg Lys Leu

210

215

220

Ala Glu Ser Ala Lys Lys Asn Asn Leu Leu Val Thr Lys Thr Ser Lys

225

230

235

240

Ala Gly Thr Thr Lys Gly Asn Lys Arg Lys Asn Lys Pro His Lys Val

245

250

255

Thr Lys Pro

<210> 113

<211> 2021

<212> DNA

<213> Candida albicans

<400> 113

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<210> 114

<211> 648

<212> PRT

<213> Candida albicans

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<221> misc_feature

<222> (424)

<223> Xaa = any amino acid

<220>

<221> misc_feature

<222> (465)

<223> Xaa = any amino acid

<400> 114

Met Glu Lys Ile Asp Ile Asn Thr Asn Ser Asn Lys Ile Gln Gln Ala

1

5

10

15

Tyr Asp Lys Val Val Arg Gly Asp Pro Asn Ala Thr Phe Val Val Tyr

20

25

30

Ser Val Asp Lys Asn Ala Thr Met Asp Val Thr Glu Thr Gly Asp Gly

35

40

45

Ser Leu Glu Asp Phe Val Glu His Phe Thr Asp Gly Gln Val Gln Phe

50

55

60

Gly Leu Ala Arg Val Thr Val Pro Gly Ser Asp Val Ser Lys Asn Ile

65

70

75

80

Leu Leu Gly Trp Cys Pro Asp Ser Ala Pro Ala Lys Leu Arg Leu Ser

85

90

95

Phe Ala Asn Asn Phe Ala Asp Val Ser Arg Val Leu Ser Gly Tyr His

100

105

110

Val Gln Ile Thr Ala Arg Asp Gln Asp Asp Leu Asp Val Asn Glu Phe

115

120

125

Leu Asn Arg Val Gly Ala Ala Ala Gly Ala Arg Tyr Ser Thr Gln Thr

130

135

140

Ser Gly Leu Lys Lys Pro Ser Pro Ala Ala Pro Lys Pro Thr Ser Lys

145

150

155

160

Pro Val Val Ala Lys Ser Ser Ser Ala Ser Lys Pro Ser Phe Val Pro

165

170

175

Lys Ser Thr Gly Lys Pro Val Ala Pro Ala Lys Pro Lys Pro Lys Asn

180

185

190

Ile Thr Lys Asp Ala Gly Trp Gly Asp Ala Glu Asp Val Glu Glu Arg

195

200

205

Asp Phe Asp Lys Lys Pro Leu Asp Asn Val Pro Ser Ala Tyr Lys Pro

210

215

220

Thr Lys Val Asn Ile Asp Glu Leu Arg Lys Gln Lys Ser Asp Thr Thr

225

230

235

240

Ser Ser Thr Pro Lys Thr Phe Lys Ser Glu Pro Gln Glu Glu Lys Asn

245

250

255

Asp Asp Asp Gly Gln Ser Lys Pro Leu Ser Glu Arg Met Lys Ala Tyr

260

265

270

Asp Gln Pro Ser Ser Ser Asp Gly Arg Leu Thr Ser Leu Pro Lys Pro

275

280

285

Lys Ile Gly His Ser Val Ala Asp Lys Tyr Lys Ala Ser Ala Ser Gly

290

295

300

Asn Gly Ala Ala Pro Ala Phe Gly Ala Lys Pro Ala Phe Gly Thr Gln

305

310

315

320

Ser Val Asp Ser Arg Lys Asp Lys Leu Val Gly Gly Leu Ser Arg Asp

325

330

335

Phe Gly Ala Glu Asn Gly Lys Thr Pro Ala Gln Ile Trp Ala Glu Lys

340

345

350

Arg Gly Lys Tyr Lys Thr Val Ala Ser Asp Glu Lys Glu Thr Asn Ser

355

360

365

Ser Glu Lys Val Asp Glu Pro Glu Glu His His Ala Ala Asp Leu Ala

370

375

380

Lys Lys Phe Glu Glu Lys Ala Asn Ile Ala Gly Asp Thr Pro Ser Leu

385

390

395

400

Pro Thr Arg Asn Leu Pro Pro Ala Pro Pro Ala Arg Glu Thr Ala Ile

405

410

415

Pro Ser Asn Glu Lys Asp Lys Xaa Glu Lys Glu Glu Glu Glu Gln Ala

420

425

430

Pro Ala Pro Ser Leu Pro Thr Arg Asn Leu Pro Pro Pro Ser Gln Arg

435

440

445

Gln Pro Glu Pro Glu Pro Glu Pro Glu Glu Glu Glu Glu Glu Glu Glu

450

455

460

Xaa Glu Ala Pro Ala Pro Ser Leu Pro Ala Arg Asn Leu Pro Pro Ala

465

470

475

480

Pro Lys Ala Glu Ala Glu Glu Ser Lys Lys Gln Ser Thr Thr Ala Thr

485

490

495

Ala Glu Tyr Asp Tyr Glu Lys Asp Glu Asp Asn Glu Ile Gly Phe Ser

500

505

510

Glu Gly Asp Leu Ile Ile Asp Ile Glu Phe Val Asp Asp Asp Trp Trp

515

520

525

Gln Gly Lys His Ala Lys Thr Gly Glu Val Gly Leu Phe Pro Ala Thr

530

535

540

Tyr Val Ser Leu Asn Glu Lys Ala Ala Asp Lys Glu Glu Glu Ala Pro

545

550

555

560

Ala Pro Ala Pro Ala Pro Ser Leu Pro Ser Arg Glu Glu Thr Gln Ala

565

570

575

Ala Pro Ala Leu Pro Ser Arg Ser Glu Gln Lys Pro Glu Ser Lys Thr

580

585

590

Ala Thr Ala Glu Tyr Asp Tyr Glu Lys Asp Glu Asp Asn Glu Ile Gly

595

600

605

Phe Ser Glu Gly Asp Leu Ile Val Glu Ile Glu Phe Val Asp Asp Asp

610

615

620

Trp Trp Gln Gly Lys His Ser Lys Thr Gly Glu Val Gly Leu Phe Pro

625

630

635

640

Ala Asn Tyr Val Val Leu Asn Glu

645

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21